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REPORT FROM THE CHAIRMAN





Utility Radiological Safety Board of Ohio

REPORT TO THE GOVERNOR AND GENERAL ASSEMBLY

Governor Strickland and Members of the Ohio General Assembly:

The member agencies of the Utility Radiological Safety Board (URSB) of Ohio - the Departments of Agriculture, Health and Commerce, the Emergency Management and Environmental Protection Agencies, and the Public Utilities Commission are pleased to present the 2010 annual report of major Board activities.

The URSB was established in July 1989 (ORC Section 4937) to coordinate the nuclear power plant responsibilities of its member agencies. The Board is also charged with the responsibility of enhancing the quality of the State's response to nuclear power safety issues in the areas surrounding our nuclear power plants. This report delineates the actions of the Board toward the accomplishment of these goals.

A full participation federally evaluated exercise was conducted with the Beaver Valley Power Station (BVPS) during the evening of April 20, 2010. The State fully activated the State Emergency Operation Center (SEOC). The demonstration of the State's Field Monitoring Teams (FMTs) and Sample Screening Point was conducted out-of-sequence during the day of April 20. Other participants included Columbiana County, the State of West Virginia and the Commonwealth of Pennsylvania. The State received one Deficiency and two Areas Requiring Corrective Action (ARCAs). The Deficiency was related to communication with the FMTs. The first ARCA was related to how a FMT recorded sampling data. The second ARCA was incurred by the dose assessment team in the SEOC. The evaluator did not have confidence in the team's ability to create a dose projection. The Deficiency and FMT ARCA were successfully re-demonstrated on July 22, 2010. The second ARCA was successfully re-demonstrated during the Perry Nuclear Power Plant evaluated exercise on September 28, 2010. The corrective actions and re-demonstrations for these findings have been completed in SFY11 and will be discussed in the URSB's SFY11 annual report.

There was a single classifiable event in SFY10 for First Energy Nuclear Operating Company (FENOC) plants. BVPS declared a Notice of Unusual Event (NOUE) on November 24, 2009, due to unidentified leakage from the reactor coolant system at a rate of greater than 25 gallons per minute. The leakage lasted for approximately nine minutes and was stopped by isolating the affected systems. There was no impact on public health and safety from this event.

The URSB continues to closely monitor those nuclear power issues that could have a direct effect on Ohio's nuclear utilities and the safety of Ohio's citizens. I encourage your review of the many specific activities of the URSB and its member agencies contained in the enclosed overviews.

Sincerely,

NANCY J. DRAGANI
Chair

DESCRIPTION OF THE URSB



DESCRIPTION OF THE URSB

The Utility Radiological Safety Board (URSB) of Ohio was established by the Ohio General Assembly as part of Amended Substitute House Bill 111 in July of 1989 and later revised by Amended Substitute House Bill 215 in June 1997. The Board's purpose is to develop a comprehensive policy for the State regarding nuclear power safety. The Board's objectives are to promote safe, reliable, and economical power; establish a memorandum of understanding with the Nuclear Regulatory Commission (NRC) and the State; and recommend policies and practices that promote safety, performance, emergency preparedness, and public health standards that are designed to meet the State's needs.

The URSB membership consists of six state agencies: the Ohio Departments of Agriculture, Commerce, and Health; the Ohio Emergency Management and Environmental Protection Agencies; and the Public Utilities Commission of Ohio.

The URSB has a Working Group comprised of member agencies' staff to support the Board and a Citizens Advisory Council (CAC), which provides the Board with citizen concerns. Board meetings are held quarterly at the offices of the Ohio Emergency Management Agency at 2855 West Dublin-Granville Road, Columbus, Ohio. The meetings are open to the public.

To find out more information concerning the URSB and its members, please refer to the URSB homepage at <http://www.ursb.ohio.gov/index.stm> or contact the URSB Secretary at (614) 889-7150.

The Board members for SFY10 and their respective designees are listed below:

Ohio Department of Agriculture

Mr. Robert Boggs, Director

Mr. Charles Kirchner, Designee

Ohio Emergency Management Agency

Ms. Nancy Dragani, Executive Director

Mr. Melvin House, Designee

Ohio Department of Commerce

Ms. Kimberly A. Zurz, Director

Mr. Dean Jagger, Designee

Ohio Environmental Protection Agency

Mr. Chris Korleski, Director

Ms. Cindy Hafner, Designee

Ohio Department of Health

Alvin D. Jackson, M.D., Director

Mr. Robert Owen, Designee

Public Utilities Commission of Ohio

Dr. Alan Schriber, Chairman

Mr. Shawn Smith, Designee

Mr. Daniel Fisher, Designee (As of June 2010)

URSB ACTIONS AND ACTIVITIES



URSB ANNUAL REPORT

FY10

SUMMARY OF URSB MEETINGS:

JULY 7, 2009

Exercises

The Davis-Besse Nuclear Power Station (DBNPS) partial participation exercise was held on May 12. The state has received the draft report as of June 26. The state received no Deficiencies or Areas Requiring Corrective Action (ARCA). There were three planning issues for Ottawa County and one previous ARCA was cleared. Lucas County had one ARCA which was re-demonstrated and cleared during the exercise.

The Virtual Plume systems were used during Field Monitoring Team (FMT) training conducted on March 27, 2009 and subsequent dry run. One additional unit will be used during the 2010 Beaver Valley Nuclear Power Station (BVPS) exercise to allow three teams to participate. This exercise is scheduled for April 20, 2010. The dry run and exercise will both be in the evening.

Davis-Besse Nuclear Power Station Regulatory Issues

First Energy Nuclear Operating Company (FENOC) has completed the independent assessments required to resume operations at DBNPS following the reactor head degradation.

On August 15, 2007 the NRC issued a Confirmatory Order to FENOC to formalize commitments made following the NRC Demand for Information (DFI) of May 14, 2007. The DFI was regarding the Exponent Report and subsequent related reports referencing the DBNPS head degradation. DBNPS has committed to comply with the components of the Confirmatory Order. Effectiveness reviews were conducted in January, 2008 and January, 2009 with positive results. The results of the assessment will be submitted to the NRC by March 23, 2009. Upon successful completion of the 2009 review, it is anticipated the Confirmatory Order will be closed.

Instrumentation Update

All counties have received Ludlum Model 3 instruments. The 2500 pocket ion chambers, model 730, have been received to replenish emergency worker dosimetry. Additional Ludlum Model 3 instruments and model 730 dosimeters were received in SFY2009. Mike Dues will be one of the FENOC representatives to the committee being formed to make recommendations for equipment upgrades or replacements and create a long-term plan.

Ingestion Zone Re-entry/Recover Advisory Group

Ingestion Zone Re-entry/Recover Advisory Group (IZRRAG) training will be conducted on September 9, 2009 with a tabletop drill scheduled for September 23. October 21 will be a FMT drill. The next evaluated ingestion exercise for the State is in 2012 with the Perry Nuclear Power Plant (PNPP).

Regulatory Updates

EPA 400 is changing the parameters for offsite protective actions. This could potentially make the current dose assessment program difficult to update. Ohio will need to look at obtaining a new dose assessment program. The state has been working with FENOC to obtain a program that aligns with their dose assessment. A request has been made that FENOC attend a working group meeting to discuss the issue.

The deadline for comments on the proposed changes to the Radiological Emergency Planning (REP) was extended to October 19. These are significant changes to a 30 year old program. Some of the major efforts are inclusion of the hostile action criteria, realistic scenarios, incorporation into the Homeland Security Exercise and Evaluation Program (HSEEP), evacuations (staged rather than keyhole) and backup for alert and notification. A summary of these documents was provided to the working group. Upon URSB approval, the working group will provide comments for their agency to Ohio EMA by August 31. The working group will then provide a white paper to the URSB at the October 5 meeting for their action. FENOC noted they are a part of an industry group responding to the rules and offered the opportunity for the state to participate through teleconference. This topic will be discussed at the NEPAC meeting and comments shared. Ms. Dragani asked what the timeline would be for implementation once guidance is finalized. Mr. Barker will get that information and report back at the October meeting. It was noted the information must be in the plan within one year of the rule change although it does not have to be exercised within the same timeframe.

Potassium Iodide (KI)

The state received approximately 1.4 million potassium iodide (KI) tablets in May. ODH has updated their KI policy and website. They removed the old KI date extension references and added the new KI expiration date. Teleconferences were held with the counties and local health departments. The counties requested baggies and inserts to break down the KI into individual amounts and these should be received by August. ODH will provide support if requested.

Midwestern Radioactive Materials Transportation Committee

As reported by Mr. Owen at earlier meetings, the Yucca Mountain project has been shelved and will only receive funding for the NRC licensing process for lessons learned. The funding will also pay for the Administration's effort to devise a new nuclear waste disposal strategy.

Devising new nuclear waste disposal strategy will be the task of a new National Commission on Nuclear Waste. The bill would establish a panel of 11 presidential appointees to study and make recommendations on the following topics: alternatives to Yucca Mountain, lessons learned from the current program, incentives for states to host a facility, the advanced fuel cycle, and alternative means of managing, operating, and financing the program. The panel would have two years to complete its task.

Congressman Doc Hastings, of Washington's 4th district, penned a letter to Energy Secretary Chu with a bipartisan group of 24 colleagues, requesting DOE increase funding for the Yucca project to at least keep the licensing review of DOE's application on track.

The Northeast, Midwest, and West regional groups submitted a joint letter to DOE, commenting on DOE's National Transportation Plan for repository shipments not being comprehensive in scope.

The Midwestern Radioactive Materials Transportation Committee submitted a separate letter supporting the joint letter. In addition to supporting the joint letter's themes, the Midwestern committee provided detailed recommendations for changes including consideration of road and weather conditions in transportation planning. It is believed that a comprehensive national transportation plan is needed, regardless of the repository's location.

The Midwestern states affected by Waste Isolation Pilot Plant (WIPP) shipments participated in the review of the Midwest's Planning Guide for Shipments of Radioactive Materials through the Midwestern States. Pursuant to a review and comment process involving all committee members, the section on weather and road conditions was updated.

An example of the need to continue collaborative transportation planning with the states is a change in route for a low-level radioactive waste shipment in a Type B container from the Brookhaven National Lab (BNL) for disposal at the Nevada Test Site.

In addition to this frustration, the BNL shipment raised the issue of whether DOE has committed to following the NRC's additional security measures for shipments of quantities of concern (RAM/QC). DOE states they will issue a policy in support of this once the NRC codifies this requirement in rule.

A conference call is planned for all Midwestern states charging fees for the transportation of radioactive waste within and through their states. The call will take place on July 23.

On June 2, the *Federal Register* contained a notice from DOT's Pipeline and Hazardous Materials Safety Administration (PHMSA) requesting comments on "issues or problems" regarding the IAEA's "Regulations for the Safe Transport of Radioactive Material," known as TS-R-1. The stated purpose of the notice was to "assure opportunity for public participation in the international regulatory development process," with PHMSA and its partner agency the NRC, seeking to identify "potential changes or solutions to resolve any identified issues or problems" in the draft 2009 version of the TS-R-1.

The comment period was only 12 days long but a 60-day extension has been requested. If the PHMSA and the NRC grant the extension, the regional groups will organize an interregional working group to review the proposed changes and prepare comments. As Chair of the Conference of Control Program Directors (CRCPD) working group on the Suggested State Regulations for the Transportation of Radioactive Material, it is Mr. Owen's responsibility to ensure these suggested regulations for transportation represent the optimal regulatory position for all 50 states. Thus, he has offered to serve on the interregional working group.

It was announced on June 18, that a nuclear power plant would be built on the DOE Portsmouth site. This will be the first new nuclear power plant since November 1987, when the PNPP reactor started up. The facility will house a single 1,600 megawatt reactor built jointly by Duke Power Company, AREVA, USEC, and UniStar Nuclear Energy. The cost will be between 5-10 billion dollars and take a decade or more to produce electricity. Construction jobs could average 1,400-1,800, with an estimated 400-700 permanent jobs needed to operate the plant.

The project to build the American Centrifuge Plant, the new and improved uranium enrichment facility, was reported to be in financial jeopardy. The 2-billion dollar loan guarantee by DOE is yet to be granted, though applied for 10 months ago. Despite Energy Secretary Chu's promise in February to hasten approval of loan guarantees, DOE has only awarded one thus far. Hundreds of construction and permanent operations jobs are at risk.

A meeting of the Midwestern committee is scheduled for October 20-21, 2009. It is unclear whether there will be funding sufficient to support further meetings. Each region is addressing this issue directly with DOE. The Midwestern committee sent a letter to DOE on April 24, but a response has not been received. The regional staff is working on a plan for continued funding and engagement with DOE. If these efforts are successful, the staff will work to improve the region's working relationship with DOE programs whose shipping activities affect the states.

Nuclear Regulatory Commission Update - BVPS

On May 12, 2009, the first quarter integrated inspection report for BVPS Units 1 and 2 was issued by the NRC. Based on the results of this inspection, no findings of significance were identified. However, two licensee-identified violations were documented, and determined to be

of very low safety significance. One was for an inadequate control room envelope boundary existing, due to a degraded (damper corrosion) normal intake damper. The second was the outer airlock to atmosphere equalizing valve being open, out of its normal position. Upon discovery of each condition, the licensee implemented corrective action to repair the damper and close the valve.

Nuclear Regulatory Commission Update - DBNPS

On April 23, 2009, the first quarter integrated inspection report for DBNPS was issued by the NRC. Two NRC-identified findings and one self-revealed finding, all of very low safety significance, were identified. The NRC-identified findings are as follows:

- A maintenance rule action plan stated that the 345 KV transformer deluge valve assemblies should be replaced in order to ensure continued high levels of reliability. However, the corrective actions in the action plan only listed the development of periodic maintenance for periodic replacement of the transformer deluge valve assemblies. The corrective actions did not address the susceptibility of the valve assemblies to inadvertently actuate the deluge system when mechanically agitated, as a result of a marginal design application.
- The failure to have qualitative or quantitative measures to ensure specified corrective actions in department directives and business practices were actually being accomplished.
- The self-revealed finding was documented for improper installation of insulation around the main turbine bearing number two oil deflector caused the main turbine to be taken off-line due to smoking insulation. An insulation blanket blocked normal air flow used for cooling the oil deflector, causing oil to carbonize and clog the oil deflector screen.

Preliminary Notifications PNO-III-09-005 and 005A were issued June 26 and 29, respectively, on the DBNPS transitory alert due to electric device failure.

Nuclear Regulatory Commission Update - PNPP

On May 5, 2009, the first quarter integrated inspection report for PNPP was issued by the NRC. Based on the results of this inspection, two NRC-identified findings, four self-revealed findings and one licensee-identified violation, all of very low safety significance were identified. The NRC-identified findings are as follows:

- The failure to implement corrective action identified by an expert review panel, after the motor feed water pump did not meet established goals. Specifically, the purifier was not continuously run on the pump's lube oil sump to ensure the pump's functionality.
- The failure to perform required nondestructive testing on the reactor pressure vessel head strong back. Specifically, the licensee failed to conduct a complete nondestructive examination of a structural weld associated with the strong back lifting device.

Four self-revealed findings were documented; 1) operators failing to conduct an adequate shift turnover, 2) improper control of maintenance resulting in unexpected water spray, 3) failure to perform an adequate survey (evaluation) to determine if respiratory protection equipment and/or engineering controls were necessary, and 4) radioactive material shipment transport manifest did not document all applicable hazardous substances.

The licensee-identified violation was the failure to adhere to procedures. Work was performed on the 'B' residual heat removal (RHR) system when the procedures specified work on the 'A' RHR

system. The 'B' RHR system was considered available as a backup system for spent fuel pool cooling at the time of the event.

FENOC Update - BVPS

The BVPS Unit 1 Outage was completed on schedule. Major work activities included those to improve system reliability.

An Unexpected Start of Aux Feedwater Pump/Actuation of Valid Signal occurred on April 20, 2009 at 0114 hours during shutdown. After operator intervention, the plant received the proper response to feedwater isolation on the “B” steam generator.

During the outage while performing planned ultrasonic examination of reactor coolant piping, two relevant circumferential indications were found in 2-inch RC-41, a drain/sample line off the “A” hot leg. The affected piping segment was removed and replaced, and sent to a metallurgical lab for examination. Metallurgical examination is required to confirm the cause; however, the probable causes are thermal fatigue, stress corrosion cracking, or a manufacturing flaw.

A visual examination of the containment liner identified a suspect area at the 738” elevation. The area was approximately 3” in diameter and exhibited blistered paint and protruding rust. Cleaning activity uncovered a rectangular hole approximately 1” (horizontal) x 3/8” (vertical), that appeared to be through the liner plate. The liner plate nominal thickness in this area is 0.375”. Ultrasonic testing (UT) thickness measurements showed the thinning was within approximately 10 square inches (i.e., 4” x 2.5”), outside of which the liner returned to nominal thickness. The area was repaired and found satisfactory during testing.

Auto Actuation of RPS, ECCS, EDG by Invalid Signal occurred on May 6 while Unit 1 was shutdown for the outage. Evaluation concluded that all systems responded as designed.

At 2139, on June 18, 2009, an Unusual Event was declared based on EPP Tab 4.1, Fire in the ERF Substation not extinguished within 15 minutes from the time of control room notification or verification of control room alarm. The fire brigade was able to report that there were no signs of fire in the ERF Substation. At 2236, the Unusual Event was terminated.

Spent fuel storage space in the Unit 2 Spent Fuel Pool is limited and the pool needs to be re-racked before Unit 2 Refueling Outage 15 (2R15) in the spring of 2011. After 2R15, “Full core off load capability” would be lost. A complete spent fuel storage rack replacement will increase the total number of fuel storage cells from 1,088 to 1,690 cells and will provide adequate storage capacity until approximately 2024, when dry cask storage will be required.

FENOC Update - DBNPS

The DBNPS Emergency Response Organization (ERO) along with offsite response organizations participated in the biennial ERO Evaluated exercise on May 12. All onsite emergency response facilities were involved. Offsite participation included full participation of Ottawa and Lucas counties and partial participation of the State of Ohio. More than 400 players were involved in the evaluated exercise.

DBNPS successfully completed a maintenance outage on April 21, 2009. The purpose was to strengthen the plant’s ability to continue to operate safely and reliably.

On April 30, 2009, six Bay Township (Zone 2) sirens inadvertently activated for a 3 minute alert. Troubleshooting on the radio console computer system revealed corrupted configuration files and error logs. The files were reloaded and the radio consoles were returned to service.

On June 25, at 0049 hours, the DBNPS Control Room received indications that one of the two switchyard buses was de-energized. A walkdown of the switchyard determined a potential transformer that monitors voltage on the 'B' phase of the 'J' bus was destroyed. The isolation of the 'J' bus resulted in the #1 startup transformer being de-energized, which placed the station in a 72 hours Limiting Condition of Operation per Technical Specification 3.8.1.

The catastrophic failure of the Constant Current Potential Device (CCPD) on 'J' bus caused a fire in the switchyard. Offsite assistance was requested. They responded to the station, but the station fire brigade extinguished the fire prior to their arrival.

The severity of the CCPD failure was not initially recognized because of the night time conditions and minimal area lighting. Daylight examination of the location of the event determined the failure of the CCPD should have been classified as an Alert due to an explosion affecting plant operation under EAL 7.D.2. DBNPS made the notification after the fact.

The event occurred outside the protected area, did not involve radioactive systems or injuries to personnel. The 'J' bus was returned to service and declared operable at 23:05 hours on June 26.

FENOC Update -PNPP

The PNPP refueling outage was conducted from February 23 to May 12. In addition to refueling, the primary focus was to improve equipment reliability.

PNPP experienced a residual heat removal pump trip on April 27 during the outage. The NRC was notified; however, the event notification was later retracted. The root problem appeared to be a blown fuse, which was replaced and the residual heat removal pump was returned to service.

At approximately 1755 on June 21, the PNPP experienced a Main Turbine Trip/Reactor SCRAM due to a Moisture Separator Reheater (MSR) 1B, high level signal. At the time of the event, the plant was in Mode 1 at 100 percent power. All control rods inserted into the core and no Emergency Core Systems were required to respond to the event. Reactor coolant level was maintained in its normal band by the feedwater system and decay heat was removed by the main condenser. The plant maintained a normal electrical line-up with all three Emergency Diesel Generators operable and available. No safety relief valves lifted during the event.

The turbine trip and subsequent reactor trip was the result of the three upper micro switches being closed to energize the MSR high level trip relays. The three MSR 1B upper micro switches were found incorrectly set up. The micro switches were successfully calibrated and functionally checked satisfactorily. A root cause investigation is in progress to determine the underlying cause(s) for the improper alignment of the micro switches following replacement during Refueling Outage 12. The plant restarted with the generator synchronizing to the grid on June 26th.

FENOC Update - Fleet

The final Integrated Protective Measurer Analysis (IPMA) reports for BVPS, DBNPS and PNPP follow the same format. The reports are as a result of the Comprehensive Review process directed by the Homeland Security Act of 2002, Homeland Security Presidential Directive 7, "Critical Infrastructure Identification, Prioritization and Protection" and the Interim National Infrastructure Protection Plan of February 2005.

Levels of classification of information contained in the reports:

"U" – Undesignated or uncontrolled information, not safeguard information, and no markings are required by the guide

“2.390” – Information withheld from the public release and protection by the Freedom of Information Act

“SGI” – Safeguards information

Information provided in this debrief is classified as “U”

The report form is

- 5.2 Site Emergency Preparedness Program
- 5.3 (Site name) Emergency Response Organization
- 5.4 Site Fire Fighting Capability

- 6.3 Community Emergency Response Posture
- 6.3.1 Emergency Planning Zone
- 6.3.2 State and Local Emergency Management Organization

- 6.4 Fire Fighting
- 6.4.1 Additional Fire Fighting Resources

- 6.5 Emergency Medical Services
- 6.5.1 Hospitals
- 6.5.11 Local Emergency Response Agreements

Each report documents existing programs and contains some detail on the various organizations capabilities. Discussions include amount and types of fire fighting capabilities, communication systems and the level and quality of training. Areas for improvement are contained in the classified sections of the reports. FENOC security is working to extract SGI information to allow a more detailed review of the results. FENOC Emergency Preparedness will continue to review the results as it becomes available including obtaining Safeguards clearance as necessary.

A summary of the training on regulatory sensitivity was provided. All training was completed in 2007 and 2008. Each year, the organization is re-assessed to see if any new individuals would benefit from the training. If so, the training is either offered in a classroom setting or one-on-one. In addition, the NRC has closed out, through inspection, any concerns dealing with the regulatory sensitivity resulting from the Demand For Information (DFI).

OCTOBER 5, 2009

Exercises

The 2010 BVPS full participation exercise is scheduled for April 20, 2010 with a dry run scheduled for March 23, 2010. Both will be conducted in the evening.

The After Action meeting for the DBNPS partial participation exercise was conducted on August 6, 2009. Individual agencies continue to address issues noted from the two previous exercises. The after action activities include an annual review of the State REP plan. Most of the issues will be addressed via e-mail with periodic meetings as necessary.

Teletrix equipment has been purchased for training of FMT. The Plume Tracker systems were used during FMT training conducted on March 27, 2009 and were used during the DBNPS dry run. One additional unit has been received and is scheduled for use during the 2010 BVPS exercise which will allow three teams to be exercised.

Ingestion Zone Re-entry Recovery Advisory Group (IZRRAG)

IZRRAG training and drills will continue to be conducted annually. IZRRAG training was conducted on September 9, 2009. The IZRRAG drill is scheduled for October 22, 2009. The Field Team Center/Sample Screening Point activities will be conducted in 2009 with the date to be determined. The next evaluated ingestion exercise for the State will be in 2012 with PNPP.

E-data/Dose Assessment Program

The working group has determined the need for consistent plant data in the Assessment Room. FENOC attended the BVPS 2006 exercise to evaluate state dose assessment needs. Currently there is no simulator data link from BVPS to the state EOC. Ohio is currently pursuing resolution of this issue with West Virginia and Pennsylvania. FENOC is currently developing a web-based system (E-data) to provide plant data for all FENOC sites to the State EOC. State personnel received training from PNPP on the E-data system in August. The E-data system was utilized during the 2008 PNPP dry run and evaluated exercise. The E-data system has not been completed for the DBNPS plant.

The working group, along with FENOC, has undertaken an evaluation of available dose assessment software. A meeting was conducted on August 26, 2009 to discuss a common dose assessment program. More meetings will be conducted in the future to further discuss development of the program.

Instrumentation Update

Ludlum Model 3 portable survey meters have been purchased to replace CDV-700RP and will be distributed to all counties. Additional Ludlum Model 3 instruments and model 730 dosimeters will be purchased to ensure all monitoring locations have the Model 3 instruments and replenish dosimetry as needed. A committee, consisting of members from FENOC, ODH, and Ohio EMA, has been formed to evaluate dosimetry and instrumentation supplied to emergency workers. This committee will provide recommendations to the NEPAC to determine a long term equipment plan. An initial conference call was held on August 3, 2009. The committee is in the process of evaluating the Ludlum Model 25 dosimeter.

Ohio Plan for Response to Radiation Emergencies at Commercial Nuclear Power Plants

Efforts continue with the improvement of the Ohio Plan for Response to Radiation Emergencies at Commercial Nuclear Power Plants (REP Plan) with regard to NIMS compliance. Ohio EMA will continue to revise the plan in accordance with NIMS requirements as inconsistencies are discovered. No formal Federal guidance has been provided to aid in this task. Further changes have been made to the 2009 revision of the REP Plan to enhance NIMS compliance. The 2009 REP Plan has been approved by FEMA. A schedule for the review and update of the 2010 REP Plan has been developed.

Potassium Iodide (KI)

ODH has coordinated with the NRC to obtain replacement KI for the power plant emergency planning zones. The current KI policy has been revised to reflect the new supply of KI for the public. ODH delivered the new supply of KI and associated distribution materials to the affected counties. The revised ODH KI policy was effective on June 18, 2009. Supporting documentation on the ODH website was updated at this time.

Hostile Action

Each plant is required to complete a hostile action drill as a component of phase three of an industry / NEI initiative driven by an NRC requirement to include hostile action drills as a major element of REP. A hostile action drill was conducted on September 12, 2007 at PNPP. A hostile action drill for DBNPS was conducted on November 13, 2008. The BVPS hostile action drill was conducted on January 27, 2009. Upon completion of the hostile action drill program nationwide, outreach opportunities for states and locals will be scheduled. The information collected will be compiled and used during the rulemaking process.

Regulatory Updates

Currently the NRC and FEMA released draft documents for public comment regarding radiological emergency preparedness. The comment period closes October 19, 2009. The working group has reviewed and compiled comments for the Board's consideration which were presented at the July meeting. A resolution approving the comments for submittal was placed before the URSB. A motion was made to approve the Resolution by Mr. Robert Owen, ODH, and seconded by Mr. Chuck Kirchner, ODA. The Resolution 09-04 was approved unanimously by the Board. The working group will continue to monitor the status of the draft documents.

In addition, from new business during the July 2009 meeting, a question was posed on what the timeline for implementation of the FEMA radiological emergency preparedness program manual after issuance. The implementation timeline is still under FEMA review.

Midwestern Radioactive Materials Transportation Committee

On July 29, the Senate approved the administration's funding request of \$196.8 million for DOE's activities related to defending the Yucca Mountain license application, which is under NRC review. The House previously approved the same funding level. The day after the Senate approval, Senate Majority Leader Harry Reid declared he reached an agreement with President Obama and Secretary Chu to eliminate virtually all funding for Yucca Mountain in FY2011.

The Fee States Caucus was formed to share information among Midwestern states that assess fees to shippers for the transport of certain types of radioactive material. Two conference calls have taken place, the last being August 31.

The result of the first call was that CSG should put together a report on the fee programs of the states. In the second call the states agreed to compile lessons learned from implementing fee programs and compose an information flyer for shippers.

Ohio joined the ranks of fee states this year. PUCO is in the process of developing rules for administering this program.

As reported to the board in the last report, the DOT's Pipeline and Hazardous Materials Safety Administration (PHMSA) requested comments earlier in the summer on "issues or problems" regarding the IAEA's "Regulations for the Safe Transport of Radioactive Material," known as TS-R-1. A request for an extension of 60 days, but the request was denied.

An ad hoc working group of Midwestern states was formed to draft regional comments on the proposed changes. Illinois's comments, as noted in the last report, were used as a guide. A letter from the committee was submitted on August 7. Key comments were that the proposed limits would result in a reduction in protection for the public, and radionuclide-specific limits would be unenforceable.

The National Transportation Stakeholders Forum (NTSF) is a new forum to replace DOE's Transportation External Coordination Working Group (TEC/WG), which served as a forum for stakeholders and DOE. However, the topic groups within the TEC/WG were acting as advisory bodies, which may be in violation of the Federal Advisory Committee Act (FACA). The NTSF was established as an acceptable national forum for stakeholders affected by DOE shipments of radioactive waste and other materials.

Details of the organization are being worked out by a handful of state, tribal, and regional representatives with several DOE programs. If all goes well, the first meeting of the NTSF will be in the spring in Washington, DC.

The next meeting of the Midwestern states committee is in Minneapolis, MN on October 20-21. Key topics will be National Nuclear Security Administration's Offsite Source Recovery Project, DOE's pending shipments of uranium oxide through the Midwest, and the continuing quest for a workable approach to the long-term management of radioactive waste.

URSB Website

Mr. Michael Chesonis, Ohio EMA, provided a demonstration of proposed revisions to the URSB website. There was discussion on the need to have a "news" tab. Several Board members and the NRC made suggestions for the site. Mr. Chesonis requested all changes be sent to him by the end of the month. He intends to make the site "live" after all changes have been made.

URSB Annual Report

Ms. Carol O'Claire, Ohio EMA, requested the URSB's approval of the draft FY09 URSB Annual Report that is required to be sent to the Governor, President of the Senate, and Speaker of the House as per the ORC. The URSB approved the report. Ms. Nancy Dragani, Chair, requested the submittal letter be placed on URSB letterhead for her signature.

Nuclear Regulatory Commission Update - BVPS

In the September 1, 2009 assessment letter for BVPS, plant performance for the most recent quarter of 2009, was within the Licensee Response column of the NRC's Action Matrix. This was based on all inspection findings being classified as having very low safety significance (Green) and all Performance Indicators (PIs) indicating performance at a level requiring no additional NRC oversight (Green). Therefore, the NRC plans to conduct reactor oversight process baseline inspections.

Nuclear Regulatory Commission Update - DBNPS

In the September 1, 2009 assessment letter for the DBNPS, plant performance for the most recent quarter of 2009, was within the Licensee Response column of the NRC's Action Matrix. This was based on all inspection findings being classified as having very low safety significance (Green), and all PIs indicating performance at a level requiring no additional NRC oversight (Green). Therefore, the NRC plans to conduct reactor oversight process baseline inspections.

In a September 10, 2009, NRC letter to the DBNPS Site Vice President, the agency concluded FENOC has met all of the requirements contained in the March 2004 Confirmatory Order. No additional independent assessments are required by this Order.

Nuclear Regulatory Commission Update - PNPP

In the September 1, 2009 assessment letter for the PNPP, plant performance for the most recent quarter of 2009, was within the Licensee Response column of the NRC's Action Matrix. This was based on all inspection findings being classified as having very low safety significance

(Green) and all PIs indicating performance at a level requiring no additional NRC oversight (Green).

Performance at the PNPP during the assessment period continued to exhibit weaknesses in the area of human performance. The total number of findings with documented cross-cutting aspects in human performance increased. NRC assessment of the findings identified three new cross-cutting themes in the human performance area: work control—planning, work practices—human error prevention techniques and work control—oversight. In addition, while the number of findings with a cross-cutting aspect of resources—documentation/procedures declined, NRC is leaving this theme open pending a demonstration of sustainable performance in this area.

This assessment period is the fourth consecutive assessment period identifying a substantive cross-cutting issue in the human performance area first identified March 2008. It is apparent the development of causal evaluations and implementation of corrective actions has not been effective in demonstrating sustainable improvement in the human performance arena.

Because efforts to effect improvements in the human performance area have not been effective as evidenced by the number of significant human performance issues having risen during the assessment period, NRC would like to discuss the issue at a public meeting. The meeting will afford FENOC the opportunity to present the progress of actions taken in response to this weakness, and why future actions will be more effective than previous actions undertaken to address these issues.

In addition to the negative trend in human performance, NRC has noted, since July 2008, a declining trend in the problem identification and resolution (PI&R) area. For this assessment period, NRC identified five findings in the PI&R area with the same aspect of corrective action program-thorough evaluation. Because of the PI&R area's continued decline, the NRC has concerns with the scope and progress in addressing the cross-cutting area performance deficiencies and has concluded a substantive cross-cutting issue exists in this area.

FENOC Update - BVPS

The Unit 2 refueling outage was conducted from October 12 - November 16, 2009. The refueling outage entailed disassembly of the reactor vessel, a complete core off load and reload of the fuel, and reassembly of the reactor. Additionally fuel pool inserts were changed out.

External and internal inspections of the reactor head were made during the outage. The external inspection consisted of a visual inspection around the entire circumference of each penetration of the reactor head. The carbon steel base material inside the ventilation head was also visually inspected.

The internal inspection consisted of ultrasonic examination of the control rod drive mechanism penetrations, eddy current testing of the head vent tube and weld, and carbon dioxide blast and dye penetrant inspections of weld overlay repairs for penetrations 16, 51, 56 and 61.

Inspections and maintenance were also conducted on the steam generators. The inspections included visual inspections and eddy current inspections. Maintenance activities consisted of tubing repairs.

Additional maintenance activities included sludge removal, foreign object search and retrieval, hand hole gasket replacement and machining of "C" generator inspection port gasket seating surfaces.

FENOC was informed by the NRC, via teleconference and letter, that BVPS Unit 1 did not have assurance of adequate decommissioning funding. On July 28, 2009 FENOC responded by

submitting an analysis that assumes delayed decommissioning (SAFSTOR) and included a Parent Guaranty of \$80 million. The SAFSTOR decommissioning model delays decommissioning by 60 years to allow certain radionuclides to decay away. The delay also permits more time for the decommissioning fund to grow. FENOC believes this analysis assures the adequacy of decommissioning funding. Currently, the analysis is under review by the NRC. FENOC has been informed a Request for Additional Information (RAI) may be forthcoming. FENOC has not received and is unaware of the content of the RAI.

BVPS heightened the awareness of site personnel to issues which could arise due to the G20 Summit in Pittsburgh. A meeting was held with key BVPS ERO members who were on call. BVPS had personnel in the Beaver County EOC while it was activated for the G20 Summit. No issues at the station occurred during the meeting. The Beaver County EOC was deactivated late on September 25, 2009.

FENOC Update - DBNPS

As part of the NRC confirmatory order related to the DBNPS reactor vessel head degradation event, DBNPS committed to performing independent assessments of four key programs for a period of five years (2004-2008). The key programs assessed were the corrective action program, engineering, operations and safety culture. The five year assessment period has ended and the NRC has returned DBNPS to their normal oversight process.

On September 30, 2009, DBNPS transitioned to the new NEI 99-01 Emergency Action Levels. Training has been provided to ERO, state and county personnel on the NEI 99-01 Revision 5 Emergency Action Levels (EALs). A training session for off site organizations was presented on September 22, 2009. The training sessions were well received and few comments resulted. EAL training for senior reactor operators and other ERO members has been on going since August, 2009. The Emergency Plan and associated implementing procedures have been revised including changes resulting from training feedback. The new EALs and EAL scheme went effective on September 30, 2009.

FENOC Update -PNPP

The self assessment done prior to PNPP's Institute of Nuclear Power Operations (INPO) review of Emergency Preparedness was completed the last week of September, 2009. Improvement areas were identified by the assessment team and documented in the corrective action program. The items did not challenge the effectiveness of the program but were areas where efficiencies could be achieved or there were opportunities for a more fleet wide approach to be pursued.

Cross-cutting issues in the areas of human performance and problem identification continue to be a problem. In the area of human performance, for the assessment period of July 1, 2008 through June 30, 2009, the total number of inspection findings with documented cross-cutting aspects is 20. Three cross-cutting themes are currently identified in the human performance area with:

- five findings in work control – planning
- five findings in work practices – human error prevention techniques
- four findings in work control – oversight

In addition, although the number of findings in resources – documentation/procedures has declined to two, the NRC is leaving this cross-cutting theme open pending demonstration of sustainable performance. FENOC Management shares the NRC's concern with human performance at PNPP and has addressed human performance aggressively through the corrective action program (cause analyses and corrective actions) and through management action (a site

stand down to reinforce and clarify individual and supervisory responsibilities under the FENOC Human Performance Program).

In the area of problem identification and resolution (PI&R), for the same assessment period, the NRC identified five findings in the PI&R area with the same aspect of P.1(c) (corrective action program – thorough evaluation). Four of the five findings were identified in the last two quarters of the assessment period. The NRC has concluded a substantive cross-cutting issue exists in this area. FENOC management also concluded site corrective action performance is challenged in this area and has assembled a root cause team, including members from off-site organizations, to perform a cause analysis and develop corrective actions to address this issue.

FENOC Update - Fleet

BVPS plant data was added to the E-data web site on July 31, 2009. A few data points are available at the station but are not currently displayed. The points are currently not networked inside FENOC's fire walled server system. A project has been funded at BVPS to get those points and the Unit 2 simulator data on to the appropriate servers to drive the web site. The project is scoped and Engineering is obtaining support for the Engineering Change Package. Target date for implementation is January 31, 2010. This will make the data available for practice drills prior to the Evaluated Exercise in May 2010.

FENOC's project leader for common dose assessment program is Mr. Mike Dues. He is assigned to Fleet EP as the Dose Assessment Specialist. The project team includes site Emergency Response Section individuals from the three sites, state representatives from Ohio, Pennsylvania and West Virginia. Two meetings have been held to outline the current programs in use and develop a preliminary scope of the FENOC standard dose assessment program. Elements identified include:

- i. Auto population of fields
- ii. Ability to quickly run "what if" type assessments
- iii. Ability to use varying levels of core damage (partial gap release, percentage of core damage, percentage of core melt, etc.)
- iv. Ease of use and need for the program to run on standard PC platforms and not require exotic hardware or high cost equipment

Mr. Dues is benchmarking other nuclear utilities to determine products in use, the satisfaction level and any drawbacks or functionality concerns. Going forward actions include; finalizing desired capabilities for the program, identification of vendors that could be contacted for bidding, review of products to determine a short list of suppliers to demonstrate products and final selection of bidders. Fleet EP has requested funds in the 2010 budget to progress the project forward next year with a target to train personnel and implement the program in 2011.

JANUARY 11, 2010

Exercises

The 2010 BVPS full participation exercise is scheduled for April 20, 2010 with a dry run scheduled for March 23, 2010. Both will be conducted in the evening.

The PNPP exercise will also be conducted in 2010. This will be a partial participation exercise scheduled for September 28 with the dry run scheduled for August 25.

The after action activities include an annual review of the State REP plan. Individual agencies continue to address issues noted from the two previous nuclear power plant exercises. The next meeting will be scheduled after the BVPS March 23, 2010 dry run.

One more Teletrix unit has been purchased for the State's FMTs making a total of 3 units, one for each FMT. All three FMT's will be evaluated for the April 20, 2010 BVPS exercise.

Ingestion Zone Re-entry Recovery Advisory Group (IZRRAG)

The annual IZRRAG training and annual drill were completed successfully in 2009. The next evaluated ingestion exercise for the State will be in 2012 for PNPP.

E-data/Dose Assessment Program

The working group has determined the need for consistent plant data in the Assessment Room. FENOC has made electronic plant data (E-data) available to the State Assessment Room. The E-data for the PNPP was successfully tested during the 2008 exercise. The E-data for BVPS is available currently; however E-data from the simulator to be used for drills and exercises is not expected to be available until the March 23, 2010 dry run. The State is awaiting E-data for the DBNPS site.

The need for a common dose assessment program to be used for all FENOC sites was stressed to the URSB. The program the state currently uses differs for each site based on site dose assessment programs.

Instrumentation Update

Ludlum Model 3 portable survey meters have been purchased to replace CDV-700RP. All counties will receive the Model 3 instruments. Additional Model 3 instruments and model 730 dosimeters have been purchased to ensure all monitoring locations have the Model 3 instruments and replenish dosimetry as needed. FMT air sampling equipment from Radeco Corporation has been ordered and we are awaiting delivery to replace older units. Training will be provided for the new units upon their arrival. Ten dosimeter charges have been received for SFY 2010 to replenish responder supply and an additional ten will be purchased in SFY 2011.

Mr. Timothy Clark provided the Board with an update on the Instrument Committee. The Instrument Committee, consisting of members from FENOC, ODH, and Ohio EMA, is evaluating dosimetry and instrumentation supplied to emergency workers. The Committee has evaluated two different electronic dosimeters and is in the process of scheduling conference calls to discuss the evaluation. The Committee will provide a recommendation to the NEPAC to determine a long term equipment plan.

Ohio Plan for Response to Radiation Emergencies at Commercial Nuclear Power Plants

Efforts continue to ensure the State REP Plan is NIMS compliant without firm guidance from FEMA. The 2010 REP plan revision will be submitted to FEMA for approval by the end of this month (January).

Potassium Iodide (KI)

All current issues have been addressed for public KI. The emergency worker KI will be the next issue to be addressed.

Hostile Action

Hostile action based drills were completed as of December, 2009. There will be a transition period from January 2010 to October 2012 where hostile action events will be integrated into biennial exercises but will not be evaluated.

Regulatory Updates

A nationwide survey was conducted of the top concerns from states and local communities regarding the proposed changes to REP guidance. The top concerns were “should” vs. “shall” and the integration of HSEEP into REP guidance. Others included the need to revise NUREG 0654; a halt to the proposal process until states have additional time to comment; and the inclusion of more state and local involvement. A NEMA REP Subcommittee has been established. Kevin Leuer is the Region V representative. FEMA has agreed to work with this Subcommittee to address and hopefully resolve the state and local government concerns.

Midwestern Radioactive Materials Transportation Committee

The Midwestern states committee met in Minneapolis, MN during October 20-21, 2009. Reports to the committee included committee project updates, NRC and DOE activities, and activities of other organizations. Key issues addressed are noted below.

Working groups of the committee that were formed or updated are Rail Inspections, NRC Rulemaking (RAMQC/SNF), Planning Guide, and Strategic Planning.

An update was provided on the proposed Blue Ribbon Commission (BRC). The FY 2010 budget allocated \$5 million to the BRC; however, it is unclear if Yucca Mountain is to be considered by the commission. The House mandated Yucca Mountain be included. The Senate said DOE must stop collecting the Nuclear Waste Fee. The final bill says all alternatives will be considered.

The current law has not been changed and provides for no alternatives to Yucca Mountain. Withdrawing the license application to the NRC indicates the site is unsuitable; but, Congress found the site suitable when it overrode the veto by Nevada on the selection of the site for the repository. Funding, of course, can continue to be reduced as was done in recent years.

There are several consequences to halting Yucca Mountain that must be dealt with, i.e., delay in waste disposal, legislation making DOE repay the Nuclear Waste Fund fees charged to utility ratepayers, current law requiring reactors to have a disposal contract with DOE to get an operating license from NRC, and cleanup penalties for not removing waste from DOE sites.

Most likely the change in federal policy will lead to long term on-site storage. This issue is being looked at by the Nuclear Waste Technical Review Board. Under current law, on-site or private storage are the only legal alternatives to Yucca Mountain.

The NRC has proposed changes to two of the five “waste confidence” findings. They propose changing finding #2 to say that a geologic repository will be available 50-60 years after the life of nuclear power plants. The previous finding was that a repository would be available by 2025. Finding #5 would be changed to say that spent nuclear fuel can be stored safely on-site at nuclear reactors for 60 years.

As previously reported to the board, the Fee States Caucus was formed to share information among Midwestern states that assess fees to shippers for the transport of certain types of radioactive material. Several conference calls have taken place thus far. The group finalized the Midwestern States Fee Flyer, and has posted it on the committee web site. The flyer lists the fee requirements of Midwestern states and is being considered for distribution to prospective shippers through the Midwest. DOE has adopted this flyer for their use and has expanded it for states nationally. The caucus is considering producing a report to provide more detailed information on the state fee programs in the region.

Construction of DUF6 conversion facilities at Portsmouth, Ohio and Paducah, KY are complete. Operations will begin March 2010. The process removes uranium oxide for disposal at the

Energy Solutions facility in Clive, Utah. Shipments are scheduled to begin four months after production begins. They anticipate 3000 filled cylinders being shipped each year, with six cylinders per car, and five cars per train. Transportation plans will be shared with the regional groups.

Due to reduced DOE funding it is the desire of the committee to maintain functionality and support from the CSG Midwest staff in achieving committee goals. The long term goal is to address issues associated with planning and preparing for shipments of spent nuclear fuel and radioactive waste to Yucca Mountain or another repository. To support this, the CSG is archiving policy decisions, position statements, and other documents on Yucca Mountain.

The short term goal is to maintain the committee as it currently exists. A survey of committee members shows support for continuation of two meetings per year and participation in the NTSF that was just established to replace the TEC/WG. Sustaining a partnership with DOE is key to achieving this. DOE Environmental Management is the only one, however, who responded to letters from Midwestern governors supporting the continuation of funding to the regional group.

A Strategic Planning Group was established to develop strategies to maintain the viability of the committee to support the above goals. Beyond DOE, other key partnerships should be established with a focus on other federal agencies. A conference call on January 4, reviewed a draft rationale for prospective organizations who may be interested in funding the committee.

The next meeting of the committee is in Chicago, IL during May 25-27. The four regional groups, the National Conference of State Legislatures, and a tribal caucus will hold meetings on Tuesday, May 25. The NTSF will hold its meeting on Wednesday, May 26. There will also be a meeting of the TRANSCOM Users Group on Thursday, May 27.

Nuclear Regulatory Commission Update - BVPS

On November 5, 2009, the third quarter integrated inspection report for BVPS Units 1 and 2 was issued. Based on the results of this inspection, no findings of significance were identified.

The Renewed License for BVPS was issued on November 5, 2009.

Nuclear Regulatory Commission Update - DBNPS

On October 21, 2009, the third quarter integrated inspection report for DBNPS was issued. Based on the results of this inspection, one self-revealed finding, and two licensee-identified violations, all of very low safety significance were identified. The self-revealed finding was identified for the failure to implement a maintenance strategy to replace a capacitive coupled potential device in a timely manner.

On December 28, 2009, an inspection report was issued for an inspection conducted onsite August 4 through 6, 2009, of an event that occurred on June 25, 2009. The purpose of the inspection was to review the events, circumstances, and licensee actions associated with an explosion in the switchyard and subsequent Alert declaration. The results of the inspection includes a preliminary White finding, low to moderate increased safety significance, that may require additional NRC inspections. The finding involves the failure to implement the emergency classification and action level scheme during an actual event for an explosion in the switchyard. After the finding was identified, the licensee staff implemented corrective actions to ensure the finding did not present an immediate safety concern.

The finding was based on the best available information using the Emergency Preparedness Significance Determination Process (SDP). Before the NRC makes a final decision on this matter, the licensee has the opportunity: (1) to attend a Regulatory Conference where the

licensee can present their perspective on the facts and assumptions the NRC used to arrive at the finding and assess its significance, or (2) submit their position on the finding to the NRC in writing. At the time of this report, the licensee has decided not to request a regulatory conference, but to submit a written response.

Nuclear Regulatory Commission Update - PNPP

On November 4, 2009, the third quarter integrated inspection report for PNPP was issued. Based on the results of this inspection, four self-revealed findings and two licensee-identified violations, all of very low safety significance were identified. The four self-revealing findings identified were, 1) failure to have appropriate troubleshooting plans for the “A” average power range monitor, 2) a supervisor authorized work order steps to be performed out of sequence on level switches for the moisture separator re-heaters, 3) failure to ensure the main floor of the diesel generator building is protected by a total flooding carbon dioxide system for fire suppression, and 4) failure to follow procedure for work management preventative maintenance process.

On November 12, 2009, staff from Region III and PNPP met to discuss licensee actions and their effectiveness for human performance issues at the facility. The meeting was a follow-up to the NRC’s 2009 Reactor Oversight Process mid-cycle assessment of the PNPP facility. In that assessment, the NRC requested a meeting to better understand the effectiveness of the licensee actions to address the long standing human performance issues. The NRC and licensee slides can be found in ADAMS as ML093210199 and ML093200584 respectively.

Nuclear Regulatory Commission Update – Other Updates

NRC Information Notice 2009-19, “Hostile Action-Based Emergency Preparedness Drills,” was issued November 24, 2009. The information notice provides a summary of the NRC staff’s observations of hostile action based emergency preparedness drills at power reactor licensees over the past 3 years.

At the Nuclear Energy Institute’s (NEI) request, on December 17, NRC and FEMA held a public meeting with NEI/industry to discuss ground rules for demonstration of hostile action elements in existing biennial exercises during the transition period prior to implementation of new exercise requirements under the proposed EP rulemaking. (ML093240165). Meeting summary (with transcript) is expected to be in ADAMS as a public document by the end of January.

NEI is proposing to engage licensees to continue to address hostile action elements during “off-year” (non-evaluated) drills and table tops, focusing on site-specific areas for enhancement.

FENOC Update - BVPS

During the Unit 2 outage an inspection of welds on the Control Rod Drive Mechanisms was planned. A relief request was approved by the NRC well in advance of the outage for an alternate technical approach. This approach exceeded the ASME code requirements and included a “PT White” requirement, meaning no dye penetrant could be seen in the white material sprayed on the weld area. FENOC committed and the NRC concurred. Due to technical welding issues in a very high radioactive dose field a “PT White” could not be achieved. FENOC presented the NRC with a request to use the original ASME code acceptance criteria. The NRC provided verbal approval. The welds were inspected to the ASME code and are fully acceptable and back into the normal inspection cycle. FENOC is waiting on written follow-up of the NRC approval.

Unit 2 declared an unusual event at 0305 on 11/24/2009 based on indication of reactor coolant system unidentified leakage greater than 25 GPM into the pressurizer relief tank. The leakage

occurred during shutdown of the residual heat removal (RHR) system Train-A. The Train-A suction relief valve lifted due to pressure from the in-service Train-B RHR system. The leakage was stopped by isolating Train-A RHR from Train-B RHR. The relief valve lifted for about 9 minutes. The pressurizer relief tank remained intact. All other systems functioned as designed and the plant was stable with no loss of decay heat removal. Containment was closed at time of the event. No radioactive release occurred. The event was terminated at 0404. Subsequent to the classification the leakage was changed from “unidentified” to “identified”.

FENOC Update - DBNPS

On November 27, 2009 at 0730 hours a Site Protection Officer had an accidental discharge of his site issued handgun. The weapon discharge occurred inside the Primary Access Facility Security Building. The officer sustained a wound to his right leg and was transported to a local hospital for treatment. The officer was released from the hospital and has recovered from the injury. A team was assembled and the event was investigated. The team, which included the firearm’s manufacturer and the local sheriff’s office, determined that the firearm was in good working order and the event was caused by a human performance error. An Event of Potential Public Interest (EPPI) communications was made by the DBNPS Emergency Response Manager to the State of Ohio, Ottawa County and Lucas County the morning of the event.

On December 29, 2009 the results of the October ground water sampling were received from the vendor. Ground water sample from Protected Area well MW-105A showed a tritium concentration of 2,285 pCi/L. Because this exceeded the 2,000 pCi/L tritium concentration threshold, courtesy EPPI notifications to the State of Ohio, Ottawa County and Lucas County were made on December 29, 2009.

This result is not unexpected. Ground water wells in this vicinity have shown slightly elevated tritium concentrations following the discovery and repair of a leaking condensate backwash line in fall of 2008. Ground water flows from the area of the condensate pipe leak toward MW-105A, and slightly elevated tritium concentration was noted in wells between the pipe break and MW-105A in the spring 2009 samples. This sample result does not exceed the NRC reporting level for tritium in environmental samples of 20,000 pCi/L in drinking water sources. A confirmatory sample from well MW-105A was taken on January 6, 2010. The results of this sample will be provided to State and County officials when available.

Early in the morning of June 25, 2009 an explosion occurred in the DBNPS main switchyard resulting in insulator debris being scattered through the switchyard. Some of the insulator debris burned for a short period due to the oil that was contained in the insulator. This event did not affect plant operations. The plant remained stable at 100% reactor power. Information on the catastrophic failure of the switchyard component was reviewed through the morning and it was determined that an Alert should have been declared as a result of this event. This issue was captured in the corrective action program. Prompt actions have been taken to prevent recurrence.

The NRC performed an onsite inspection August 4-6 collecting information on this event. On December 28, 2009 the NRC issued their preliminary report. This report identified:

- A preliminary White Finding for the missed emergency classification.
- A non-cited violation for the procedure failing to provide clear and consistent guidance for notification to the State and local counties.
- A licensee identified non-cited violation for failure to provide timely notification to the NRC following identification of the missed emergency classification.

The NRC report is under review and a formal response will be provided by January 28, 2010.

FENOC Update – PNPP

Two Licensee Event Reports were submitted to the NRC on December 14, 2009. The reports involve the Emergency Service Water (ESW) system cable failure and subsequent plant shutdown where a reactor recirculation pump failed to downshift to slow speed.

LER 2009-003, “Completion of Technical Specifications Required Shutdown due to Division 2 Emergency Service Water (ESW) Inoperability”

On October 15, 2009, the Division 2 ESW pump B tripped after 77 minutes of operation. Testing confirmed initial breaker indications that there was an electrical problem with power to the associated pump motor. A controlled plant shutdown was commenced due to the anticipated investigation and expected repair time exceeding the Technical Specifications Required Action completion time. On October 16, 2009, at 0048 hours, shutdown of the plant was completed by manual actuation of the Reactor Protection System. The plant remained in Mode 3 until 0429 hours on October 19, 2009, when the plant entered Mode 4. Following repairs and testing, on October 28, 2009, the Division 2 ESW pump B was restored to service at 0515 and declared operable at 1358 hours.

Based on cable failure analysis, the cause of the Division 2 ESW pump B trip was determined to be a manufacturing defect in the power supply cable. A contributing cause was attributed to the effects of the predictive maintenance testing methodology. The failed cable section was replaced with a Unit 2 installed spare. Corrective actions were initiated to replace similar safety-related cables and to revise cable replacement frequency and procedures to incorporate lessons learned.

LER 2009-004, “Reactor Recirculation Pump Failure Results in Manual Reactor Protection System Actuation”

On October 15, 2009, at approximately 1225 hours, a planned shutdown was commenced due to Emergency Service Water System pump B inoperability. At 2241 hours, reactor recirculation pump A failed to transfer to slow speed during pump downshift and subsequently tripped. On October 16, 2009, at 0048 hours, with the reactor operating at approximately 30 percent rated thermal power, shutdown of the plant was completed by manual actuation of the Reactor Protection System when the Mode switch was placed in Shutdown in accordance with plant procedures.

The cause of the reactor recirculation pump A failure to transfer to slow speed was due to the low-frequency motor-generator output breaker failing to close. This was caused by an intermittent connection of the retaining clip on the contactor due to not being properly seated because a skill-based error that occurred during a preventive maintenance task in April 2007.

Recently related corrective actions have been focused on addressing the inconsistent use of human performance tools by individual workers and the lack of reinforcement of tool usage by supervisors and management. The failed contactor has been replaced and tested. Proper assembly of the contactor was verified.

The NRC identified substantive cross-cutting issues in human performance and problem identification and resolution (PI&R). An NRC Public Meeting was held November 12, 2009, to discuss the results of the NRC’s mid-cycle assessment of PNPP. The current PNPP status in the NRC Reactor Oversight Process Cross-Cutting Areas, based on a rolling 12 month average, follows. The total number of inspection findings with documented cross-cutting aspects is 23.

Currently, there are three NRC identified cross-cutting themes in the human performance area with four findings in H.3(a) (work control - planning); two findings in H.4(a) (work practices – human error prevention techniques); and four findings in H.4(c) (work control – oversight). In addition, although the number of findings in H.2(c) (resources – documentation/procedures) had declined, the NRC left this cross-cutting theme open pending a demonstration of sustainable performance. The number of findings for this area remained at two.

FENOC Management shares the NRC's concern with human performance at PNPP and has addressed human performance aggressively via the corrective action program (cause analyses and corrective actions) and through management action (a site stand down to reinforce and clarify individual and supervisory responsibilities in the FENOC Human Performance Program).

There was no change in the number of NRC identified findings in the PI&R area with the same aspect of P.1(c) (corrective action program – thorough evaluation); therefore, the number of findings remained at 5. FENOC management concluded that site corrective action performance is challenged in this area and assembled a root cause team, including members from off-site organizations, to perform a cause analysis and develop corrective actions to address this issue. This has been completed and corrective actions are being implemented.

Dry Cask Storage Update and Goals for 2010:

- Major construction activities were completed in 2009 including hydro-excavation and underground mitigation which subsequently supported pouring of the main concrete pad completed in December 2009.
- The focus during 2010 will be the upgrade of the Fuel Handling Building crane, haul path upgrades, arrival of major equipment/components (casks, ancillaries), construction, procedure updates, training and NRC observed dry runs, which are slated to begin late in the year.
- Loading of spent fuel into the first dry casks (6 casks) is slated to begin in fall of 2010.

FENOC Update – Fleet

E-data continues to progress. PNPP actual and simulator information is available. BVPS Unit 1 and 2 data are available except for a few points. The points are on stand alone computer systems hardwired to the control rooms and emergency facilities. Network modifications are being made to provide the points on E-data. Unit 2 simulator data is also being worked to provide data points on E-data in support of the 2010 Dry Run and Evaluated Exercise. Unit 1 simulator data will follow after completion of Unit 1 plant computer upgrades expected to be done by early 2011. DBNPS plant data is being scoped. DBNPS E-data programming and web development is expected to begin in mid-2010 with a goal to have plant and simulator data on line for the 2011 Evaluated Exercise. The DBNPS effort is tied to improvements in cyber security.

FENOC Common Dose Assessment Project Team met with two vendors on 12/4/09 for demonstration of a computer software application to perform dose projections. Key points of interest from the demo were:

- Stand alone computer system capable of performing dose assessment and dose projections utilizing various source term inputs and met data.
- 24/7- 365 days a year continuous running program, capable of providing dose projections within 15 minutes or less.
- Three modes of operations (i.e. drill, live and simulator input).
- Graphic display of plume.
- Capable of topographical display of local terrain.

- Remote logon capability.
- Electronic display of data, (PAR) and capable of integrating output to WEBEOC format.

Upcoming Action Items

- Schedule third vendor demo in January 2010.
- Begin bid specification process and package development for the Budget Review Committee.
- Develop FENOC Common Dose Assessment procedure (NOP-LP-5007).
- Start work on Common Notification forms with a target of April 2010 to present smooth draft to states for review.

The Fleet Emergency Preparedness reorganization has continued to develop. Consolidation actions (e.g. siren program, development of common procedures, etc.) continue to progress. The organization is focused on three major areas:

- Scenario development for drills and exercises
- Common dose assessment program and Notification form
- Implementation of technology (i.e. WebEOC, off site hosted Dialogics, etc.)

Other areas of common approaches (i.e. procedures, training, public information, facilities, and equipment) are pursued when opportunities are presented. Some new personnel have been hired and the group continues to be 100% staffed. An assessment is planned in March 2010 to evaluate organizational changes, their effectiveness and to identify any gaps that require action. The Fleet continues to be directly involved with industry issues such as NRC/FEMA rule making, NEI and INPO task groups, and Region 1 and 3 Utility Group efforts.

APRIL 12, 2010

Exercises

The 2010 BVPS full participation evaluated exercise is scheduled for the evening of April 20, 2010. The dry run was held the evening of March 23, 2010. Communication difficulties were experienced so a 2nd dry run will be conducted tomorrow, April 13th, during daytime hours without field activities. The primary purpose is to test communication of data needed to develop a Protective Action Recommendation (PAR) and subsequent Protective Action Decision (PAD).

All of the difficulties encountered in the BVPS dry run have been added to the After Action Matrix. A conference call was held on April 10th with West Virginia, Pennsylvania, and BVPS to resolve the communication problems experienced in the Executive Room. The 2nd dry run tomorrow will confirm those communication problems have been resolved.

An additional Teletrix unit was received giving us the ability to exercise all three Field Monitoring Teams. This will be the first year that we've had the opportunity to do this.

The PNPP partial participation exercise, meaning no field or Operations Room activities, will be the second exercise conducted this year. The dry run is August 25th and the evaluated exercise is September 28th.

Ingestion Zone Re-entry Recovery Advisory Group (IZRRAG)

The IZRRAG needs regular activities because it is only exercised once every six years. Training provided includes table top exercises, drills or procedure reviews. IZRRAG activities are an involved process that includes sample collection, mapping of collection sites, communication

and analysis of results, establishing food embargos and residency restrictions. Training and drills were held in September and October of 2009. More training is planned for this October.

E-data/Dose Assessment Program

E-data has been implemented and demonstrated successfully for PNPP. The understanding is E-data has been implemented for BVPS but has not been demonstrated in an exercise. E-data has not been implemented for DBNPS but will be demonstrated during the 2011 exercise.

The URSB has been waiting some time now for a common dose assessment program. The last common dose assessment program meeting was in August of 2009. It was a good meeting but it was agreed FENOC would wait until the E-data system was in place. The affected parties are still waiting on the E-data system to be put in place. E-data is a significant improvement in the way offsite agencies get vital data for dose assessment. FENOC took steps to identify vendors that could develop a common dose assessment program. It was understood FENOC would get back with the affected parties. FENOC has not provided any further information at this time.

Instrumentation Update

The upgrade of EPZ emergency response equipment continues. Most of the CDV-700RP's have been replaced with Ludlum Model 3's. The Instrument Committee is looking at upgrading the direct reading dosimeters to electronic dosimeters.

Radeco air sampling equipment has recently been purchased for the FMTs. The Radeco equipment is AC/DC which means they can use it either with AC power or can run off DC from a vehicle. The new units provide more versatility and have higher range capabilities.

Potassium Iodide (KI)

ODH has nearly finished 2011's replacement campaign but has received a request from Lake County for additional baggies and inserts. Lake County is concerned that if an accident occurs, there will not be time to break down and distribute the KI, and would rather have the KI ready in advance. Lake County was going to pay for the supplies, but has requested ODH purchase the needed supplies. Lake County provided an estimate from the vendor. ODH is working with Lake County and the vendor to place an order for approximately 65,000 bags and 73,000 inserts.

The next campaign will be the emergency workers KI which was exchanged in 2007, so it will be due 2012.

Hostile Action

It has yet to be determined how hostile action events will be integrated into biennial exercises. The understanding is there will be a transition period from January 2010 to October 2012. The transition will be on a voluntary basis as the utilities put the scenarios together.

Regulatory Updates

Presently there is no information on FEMA's adjudication of comments to the proposed REP changes that we submitted prior to October 19th. NRC and FEMA are looking at NUREG 0654 Supplement 3 which is out in a draft form. Comments are due in May. The URSB working group has reviewed it. The proposal from the working group is the different member agencies review the NUREG 0654 Supplement 3 and if they decide to submit comments, they would coordinate those comments via Ohio EMA to avoid member agencies contradicting one another. Comments need to be submitted to EMA by April 30, 2010. Clarification was provided that this would not be an official URSB comment as the due date is between meetings and could not be

acted on by the Board. Supplement 3 will be reviewed in depth later in the meeting by the NRC representative and a member of the working group.

ODH Announcement

Ken Barnhart was introduced as the new supervisor of the ODH Bureau of Radiation Protection (BRP) technical support section. Mr. Barnhart was promoted in January and this is his first meeting to observe.

Midwestern Radioactive Materials Transportation Committee

Mr. Owen reported the Midwestern committee has not met since the last URSB meeting. The next meeting is in Chicago on May 25. The committee will hear from working groups on the Midwestern fee states caucus, reciprocal rail inspection procedures, DOE funding, Planning Guide revision, NRC rulemaking, DOE Environmental Impact Statement review, and OCRWM transportation issues archive.

On May 26 the committee is hosting the first meeting of the NTSF. This organization replaces the DOE TEC/WG. The NTSF will be the mechanism by which DOE communicates with states and tribes about DOE's shipments of radioactive waste and materials.

There is also a meeting of DOE TRANSCOM users on the day after the NTSF meeting.

The list of communities, states, lawmakers, organizations, and other interested parties that have publicly objected to DOE's cancellation of Yucca Mountain is growing. DOE filed a motion to withdraw the Yucca Mountain License Application on March 3. NRC Commissioner Dale Klein is critical of how the President has dealt with the Yucca Mountain Project, asserting the administration's decision was politically, not scientifically, based. Members of the House Energy and Water Development Appropriations Subcommittee were critical of the cancellation and the administration's insistence that Yucca will not be considered by the newly formed Blue Ribbon Commission (BRC), even though it was understood Yucca Mountain was an option when the BRC was created. At the first meeting of the BRC on March 25, DOE Secretary Chu reiterated the BRC is not to focus on whether Yucca Mountain can be used as a repository in the future. Nonetheless, Congressmen from Washington and South Carolina introduced legislation to prevent the administration from shutting down the Yucca Mountain Project.

The fee states caucus held a conference call on February 2. The agenda consisted of updates on the Midwestern flyer and DOE's table of fees. States reported on status of fees being charged on transportation of certain types of radioactive material within and through the Midwest.

A working group was formed to review the Midwestern Planning Guide, which outlines the expectations of the Midwestern states for all shippers that transport radioactive material through the region. The group held a conference call on April 6, to discuss proposed changes to the guide. Another call will be conducted on April 22, to finalize the changes.

Nuclear Regulatory Commission Update - BVPS

In the March 3, 2010, assessment letter for BVPS, plant performance for the most recent quarter, as well as the last three quarters, was within the Licensee Response column of the NRC Action Matrix. This was based on all inspection findings being classified as having very low safety significance (Green) and all PIs indicating performance requiring no additional NRC oversight (Green). Therefore, the NRC plans to conduct reactor oversight process baseline inspections.

Nuclear Regulatory Commission Update - DBNPS

In the March 3, 2010, assessment letter for DBNPS, plant performance for the most recent quarter was within the Regulatory Response column of the NRC Action Matrix. This was based on one finding associated with the Emergency Preparedness Cornerstone being classified as having low to moderate safety significance (White). This White finding, from the fourth quarter of 2009, involved the failure to classify an actual Alert in a timely manner during a June 2009 switchyard event.

The NRC plans to conduct Supplemental Inspection 95001 in addition to baseline inspection activities, based on the current placement in the Action Matrix. When DBNPS notifies NRC of their readiness for the supplemental inspection, the NRC will conduct the 95001 inspection to review the actions taken to address the White finding.

An inquiry was made if the State would be able to observe the inspection as a JIOP activity, as the URSB has concerns about this incident. The NRC representative confirmed this inspection would be observable and can be coordinated through the State Liaison Officer.

Nuclear Regulatory Commission Update – PNPP

In the March 3, 2010, assessment letter for PNPP, plant performance for the most recent quarter, as well as the last three quarters, was within the Licensee Response column of the NRC Action Matrix. This was based on all inspection findings being classified as having very low safety significance (Green) and all PIs indicating performance requiring no additional NRC oversight (Green). Therefore, the NRC plans to conduct reactor oversight process baseline inspections.

In the mid-cycle assessment letter dated September 1, 2009, PNPP was advised of a substantive cross-cutting issue in the area of human performance. During the most recent assessment period, PNPP has continued to exhibit weaknesses in this area. The total number of findings with documented cross-cutting aspects in human performance remained relatively constant, changing from 20 during the last assessment period to 19 during the most recent. NRC identified three cross-cutting themes in the human performance area: work control – planning; work practices - human error prevention techniques; and work control – oversight. However, during the past assessment period, the number of findings with the same cross-cutting aspect of resources-documentation/procedures was reduced below the threshold for substantive cross-cutting issue themes. The NRC will continue to monitor the human performance area as a whole, based on the actions taken, the resources-documentation/procedures theme is being closed.

On November 12, 2009, at a public meeting to address the ongoing human performance substantive cross-cutting issue, PNPP discussed the progress of the corrective actions taken and the reasons these actions will be more effective than previous actions. The NRC recognizes the attempts to refocus site personnel on human performance commitments using stand-downs, and emphasis on human performance tools. However, the number of human performance findings remains high. The NRC believes it is important to demonstrate progress in these areas and a clear understanding of how safety culture improvements can assist in the recovery. Because the efforts to improve in the human performance area have not been effective, the NRC requests an independent assessment of site safety culture. This assessment will help improve the understanding of how overall site safety culture is impacting the ability to improve in the human performance area. This assessment should be completed in time to be reviewed during the NRC biennial Problem Identification and Resolution (PI&R) inspection scheduled for November 2010.

Nuclear Regulatory Commission Update – Other Updates

The NRC is proposing changes to NUREG-0654/FEMA-REP-1, Supplement 3 regarding the development of protective action recommendations. The proposed revision to the guidance document incorporates:

- increased offsite response organization involvement in the development of protective action strategies;
- consideration of staged evacuation as the initial protective action at the General Emergency stage;
- increased use of shelter-in-place for certain scenarios; and
- guidance to improve communications with the public before and during an emergency.

The comment period closes May 24, 2010. Two public meetings are scheduled for Tuesday, April 13, 2010, at 1:00 pm and again at 7:00 pm. The capability to teleconference or web conference will be available for both meetings.

The NRC has asked the National Academy of Sciences (NAS) to perform a study on cancer risk for populations surrounding nuclear power facilities. The NAS is a non-governmental organization chartered by the U.S. Congress to advise the nation on issues of science, technology, and medicine. The NRC is seeking an update to the 1990 U.S. National Institutes of Health - National Cancer Institute (NCI) report, “Cancer in Populations Living Near Nuclear Facilities.” The staff uses the NCI report as a primary resource when communicating with the public about cancer mortality risk in counties that contain or are adjacent to nuclear power facilities. The NCI report studied more than 900,000 cancer deaths from 1950–1984, using mortality records collected from counties that contain nuclear facilities. The researchers evaluated changes in mortality rates for 16 types of cancer in these counties from 1950 until each facility began operation, up until 1982. Cancer diagnosis information was only available for four facilities located in Iowa and Connecticut, due to the lack of this type of data being collected.

NRC Update – Emergency Action Levels

A question was raised as to why similar events at two different plants were classified differently. PNPP and Brunswick both experienced fires on the same day. The event was unclassified at PNPP, but Brunswick’s fire was classified as an unusual event. It was clarified that each plant has different Emergency Action Levels (EALs) that are approved by the NRC that are specific to each plant. The difference in event classification is due to differences in the plant EALs. Therefore judging plant performance by comparing classifiable events at various facilities is not recommended.

Working Group Comments of NUREG-0654 Supplement 3

The draft of Supplement 3 recommends changes to how the utility plans their response to an emergency, known as their Protective Action Strategy. The draft Supplement 3 encourages interaction with the off-site response organizations (including law enforcement), to incorporate their concerns into the logic diagram. Draft Supplement 3 encourages downwind persistence studies for plants with frequent wind shifts to determine if wider evacuations should be recommended. Draft Supplement 3 recommends the plant consider weather conditions in generating their PAR. This has met with resistance as weather and road conditions for the entire EPZ is not something the plant tracks or is accountable for. Weather effects on evacuation fall under the purview of the county.

Alternate Protective Actions were discussed in Supplement 3. Ohio has been using the standard keyhole evacuation 2 miles 360degrees and 5 miles downwind. The recommendation is for Staged Evacuation. Meaning the population closest to the plant evacuates first, while the population farther out shelters until the first group has been evacuated. This keeps the roads clear allowing a safer and faster evaluation for the people who are most at risk.

Another concept introduced in Supplement 3 was Heightened Preparedness which can be defined as making the public aware they may need to take action. Supplement 3 recommends people be ready to evacuate immediately or take actions to shelter. If finalized the state and counties will have to revise the procedures used for public protection.

Draft Supplement 3 focused on communication with the public. The better communication is with the public, the more likely they will take the requested action. The following communication recommendations were made by Draft Supplement 3:

- Frequent repetition of the message to the public was shown to induce better compliance.
- Communicate with the public not in harm's way to reduce panic, confusion and shadow evacuation.
- Revise communications to reflect that people are not usually at home when emergencies occur.

Telephone surveys conducted to guide Supplement 3 revision revealed:

- People are more likely to evacuate if allowed to bring their pets.
- Families will want to evacuate together.
- Parents are likely to go to their child's school even if instructed not to.
- Members of special needs populations are reluctant to register as needing assistance.

FENOC Update - BVPS

The BVPS Unit 2 spent fuel pool re-rack will use mixed zone region storage. A vendor has been selected to design the application of those racks. FENOC will be responsible for the removal and disposal of the old racks. FENOC submitted a license amendment request to the NRC in April 2009 and is expecting approval in August 2010. The installation will begin in October 2010, will stop during the outage and be completed by August 2011.

FENOC had a dry run on March 23rd and performed 81 out of 90 exercise objectives satisfactorily. Problems were identified with PAR development; one timeliness issue and one was inaccuracy on the form. A second dry run will occur tomorrow. Both dry runs had mock NRC teams because the NRC will be playing at the PNPP and BVPS exercises this year. This adds another element of activities and tomorrow's dry run will have an additional 13 players. Region I NRC provided an update of what they were going to do and the general discussion was very helpful for the stations.

The heavy snow earlier this year caused power outages in the BVPS area resulting in 42 of 119 sirens being out of service, which is 35% of the sirens out of service. This meets the emergency plan criteria of greater than 25%. This required an NRC notification call which was made. The NRC Resident inspector was also notified. All but one siren's power was restored five days after power was lost. FENOC had priority restoration approved from Duquesne Light service. All sirens were in service on February 20th. The BVPS alert notification system has 25 sirens with back-up battery power. BVPS's project is very similar to the DBNPS project in that, a new siren assembly is built on the ground and all new supporting equipment is installed. Thirty-five sirens

will be installed this year beginning in May. The remaining 40-50 sirens will be budgeted for replacement in 2011.

FENOC Update - DBNPS

In addition to the White finding for the switchyard event DBNPS received a non cited violation for failing to provide clear and consistent guidance for the notification of the State and counties as an upgrade to the EPPI procedure. That procedure is in final review and will be issued soon. We had a licensee identified violation for the timely notification of the NRC following the missed emergency classification 1 hour report to the NRC. A Regional inspector performed a follow-up inspection, and FENOC took a number of actions based on that inspection. On March 29th we completed those actions and notified NRC that DBNPS is now in full compliance. We'll work with NRC to schedule a 95001 inspection.

A few items were identified during the DBNPS outage. One potential NRC finding was associated with penetration local leak rate testing of gasket material; specifically o-rings with a sealant. One o-ring was spliced together without being documented in a previous work order. The NRC questioned the integrity of the o-ring. FENOC tested it prior to disassembly and determined it was where the sealing flanges meet. In 2005 the test results were reviewed and they met the acceptance criteria. During that period of time, there was no leakage associated with that gasket material.

In December 2009, we received the results from October ground water samples which showed a tritium level of 2285 picocuries per liter (pCi/L). This was not unexpected, as 15 months before DBNPS discovered a pipe which had been leaking over a period of time. The tritium seems to be migrating toward the wells as expected. The tritium level is very sensitive to rain levels and drought conditions. FENOC continues to monitor that migration. The ground water from that leak was noted between the pipe break and the well itself. The values are well below the limits of 20,000 pCi/L of tritium for drinking water. DBNPS continues with monthly sampling with results of 3799 pCi/L in January, 3906 pCi/L February and 4158 pCi/L in March in the same well. Following receipt of those samples FENOC notified the state and local organizations per our procedure. DBNPS will do a normal full sample of all the wells in May. Associated with that, DBNPS had another slight leak in a line used during outages. The line runs from a condensate pit over to a settling pond. The line was buried PVC about 2 feet below ground. Heavy equipment in the area caused the pipe to crack. The pipe is used only during outages, so when the leakage was identified, the flow was stopped, the pipe was excavated and another line was rerouted from the condensate pit to the settling pond. The leakage was estimated at 100-200 gallons of water. A water sample in the area found tritium levels of 2400 pCi/L which is less than 30,000 pCi/L for non-drinking water sources. FENOC is seeking a modification order design change to bury the pipe deeper.

During the outage scheduled testing found 16 nozzles on the reactor vessel head with cracking. A number of tests were conducted on those nozzles including axial ultrasonic testing (UT), bare metal examination of the head itself and dye penetrant tests (PT). The testing included the weld on the bottom of the head where the nozzles join the head. The PT process has not been used at DBNPS previously but has been successful at other plants. With the repairs, the vessel head itself and the nozzles would have undergone 100% inspection by a number of non-destructive tests to ensure the welds are fit for service. The nozzles will pass the actual circumferential UT exams, the bare metal inspections, as well as either manual PT of the under the head weld or a remote test on the j-groove replacement material. This is highly automated process as it's a high dose area under the head. The process basically replaces the degraded part of the nozzle with a new piece of nozzle welded in place to restore it to the original design. That process is going on

at a very measured pace. NRC has special inspectors observing, in addition to the Resident inspector. Site Vice President, Barry Allan, has made it clear the repairs must be perfect before DBNPS re-starts, and the repairs will proceed at their own pace. Personnel involved with the nozzle repairs are working at a pace necessary to do it correctly without any injuries and to limit dose. A completion date has not been set.

FENOC has assigned a group of people to perform root cause analysis of the nozzle cracking. The root cause team has been supplemented by material experts from the industry and the Reactor Power Research Institute trying to understand how these head conditions developed after three fuel cycles. The relatively quick cracking of the nozzles is a specific item of discussion and is of interest to the whole industry. Past problem areas which leaked previously showed no signs of leakage. The corrective actions put into place previously were effective. FENOC will have a root cause for the failure of the nozzles. Samples from the head and nozzle have been submitted for metallurgical analysis. The current head was inspected prior to acquiring it from the Midland plant for installation. No flaws were found. The pre-service inspection is being reviewed, along with records from past outages and test results from earlier in this outage. Consideration is being given to the effects of changing temperature and flow conditions within the reactor. The conditions in which the head was stored prior to its installation are also being reviewed. In the short term the 16 nozzles will be repaired and tested. The long term solution is to replace the head. A contract has been signed for a new head and two new steam generators for DBNPS, but no shipping dates are set. The head is complete but fabrication of the steam generators is in the early stages. The plan was to install it in 2014 when the steam generators are replaced.

FENOC Update – PNPP

The fire at PNPP was discussed earlier. The fire was caused when oil which had leaked from a pump onto piping insulation ignited. The pump is steam driven with a great deal of piping in the room so everything is hot. The room is normally about 100-110 degrees. The fire itself was a small and was extinguished by the plant fire brigade. The fire would periodically re-ignite and have to be suppressed again. This was done primarily with CO₂ and minimal amounts of water to avoid cracking hot pipes by rapid temperature change. Due to the re-ignition problem two members of the fire brigade were overcome by heat stress and transported to the hospital. Offsite assistance was summoned in case additional personnel would be needed to keep the re-ignition under control in such high heat conditions. The methods and logic by which offsite personnel are admitted to the plant for an emergency condition were discussed in detail by the URSB and FENOC representatives.

The pump was brought on-line on April 1st after being inspected and repaired. The pump is being continuously monitored by a remote camera from the control room. There have been no further problems with the pump

PNPP is having difficulty identifying the root cause of the human performance problems. PNPP's focus for addressing human performance is getting independent evaluation of plant practices to identify this root cause. Another challenge deals with the notification and resolution which is addressed by the corrective action program. All issues are entered into the corrective action program, and while not every problem is subjected to root cause analysis, the aggregate of information can be examined for trends. These examinations not only look at problems from a plant perspective, but also from a fleet perspective.

Recent work at PNPP on dry cask storage included the fuel handling building and completion of the transport path. The fuel handling building crane work is finishing up. Procedure updates are going through the review process of Plan Operation Review Committee. Training on these new

tasks and procedures are scheduled to begin in May. The NRC is scheduled to come out and observe a dry run of the dry cask procedures in August and hopefully loading spent fuel will begin this fall.

On April 6th PNPP made a non-event notification to the NRC for the loss of safety function associated with isolation containment. During a surveillance test a blown fuse caused the loss of electrical power to some of the logic associated with the process to mitigate the consequences of an accident. The surveillance test was suspended; personnel commenced troubleshooting and investigating the results. The loss of logic power affected 5 isolation valves and caused them to lose their automatic isolation function and could not automatically close if they received the isolation signal. Power was available to the valves and the operators had the ability to close the valves if needed. The fuse was replaced restoring electrical power and the system was tested to confirm isolation capability. The investigation is ongoing and currently the License Event Report (LER) will be to the NRC within 90 days of the event.

FENOC Update – Fleet

FENOC agreed to provide the Security Comprehensive Review information after the BVPS evaluated exercise.

The dose assessment information is being pursued by Mike Dues the Fleet Dose Assessment person who has been considering a number of products. A few have been identified to present to the whole team and a project plan has been developed. The products appear to have the benefit of being much simpler to run than current programs.

THE FOLLOWING IS A SUMMARY OF THE STATUS OF THE URSB WORKING GROUP INITIATIVES AT THE END OF SFY10:

1. BEAVER VALLEY FULL PARTICIPATION EXERCISE

The 2010 BVPS full participation exercise is scheduled for April 20, 2010 and will be conducted in the evening. Field Monitoring Teams (FMT) will conduct their activities during the day. The dry run was conducted in the evening on March 23, 2010 while the FMTs conducted their activities during the day. Due to difficulties experienced by the participants during the March 23rd dry run, the state will participate in the second dry run on April 13, 2010. The state's participation will be focused on the areas of concern in the second dry run to ensure the problems experienced in the March 23rd dry run have been resolved.

2. PERRY NUCLEAR POWER PLANT PARTIAL PARTICIPATION EXERCISE

The 2010 PNPP partial participation exercise is scheduled for September 28, 2010. The dry run is scheduled for August 25, 2010.

3. REACTOR OVERSIGHT PROGRAM (EMA/ODH)

This is an NRC program used to provide continuous oversight of nuclear power plants to verify that each plant is operated in accordance with NRC rules and regulations. Key features of the program are a risk-informed regulatory framework, risk-informed inspections, a significance determination process to evaluate inspection findings, performance indicators, a streamlined assessment process, and more clearly defined actions the NRC will take for plants based on their performance. The URSB will continue to monitor this program especially as it relates to emergency preparedness.

4. AFTER ACTION PLAN ACTIVITIES (EMA/ODA/ODH/EPA)

The after action activities include an annual review of the State REP plan. Individual agencies continue to address issues noted from the two previous nuclear power plant exercises. The After Action meeting for the Beaver Valley full participation dry run exercise was conducted on April 7, 2010. IZRRAG After Actions items are being captured separately. The issues are being addressed by e-mail with periodic meetings as necessary.

5. IZRRAG ACTIVITIES (ODH/EMA/EPA/ODA)

IZRRAG training and drills will continue to be conducted annually. IZRRAG training was conducted on September 9, 2009. The IZRRAG drill was conducted on October 22, 2009. The Field Team Center/Sample Screening Point activities were conducted on November 12, 2009 at Ohio EMA and all IZRRAG member agencies participated. The annual training will be conducted in the month of October 2010. The next evaluated ingestion exercise for the State will be in 2012 with the Perry plant.

6. PLANT OVERSIGHT (EMA/ODH)

a. DAVIS-BESSE NUCLEAR POWER STATION (DBNPS):

DBNPS has recently been placed in column two of the NRC Reactor Oversight Matrix. The placement was due to one white finding as described in NRC Inspection Report No. 05000346/2010502, regarding the June 25, 2009 explosion occurring in the switch yard.

b. BEAVER VALLEY NUCLEAR POWER STATION

Beaver Valley continues to be in column one of the NRC Reactor Oversight Matrix.

c. PERRY NUCLEAR POWER PLANT

The Perry plant continues to be in column one of the NRC Reactor Oversight Matrix.

7. TECHNOLOGY (EMA/ODH/EPA)

The Working Group has determined the need for consistent plant data in the Assessment Room. FENOC attended the Beaver Valley 2006 exercise to evaluate state dose assessment needs. Beaver Valley has real time E-data available, but currently there is no simulator E-data link from Beaver Valley to the state EOC. The Beaver Valley simulator E-data link was projected to be operational before the exercise dry run in March 2010, but currently is unavailable. The E-data system was utilized during the 2008 dry run and evaluated exercise with the PNPP. The E-data system has not been completed for the DBNPS plant.

Teletrix equipment has been purchased for training of Field Monitoring Teams (FMT). The Plume Tracker systems were used during FMT training conducted on March 9, 2010 and during the BVPS dry run and will be used during the evaluated exercise. One additional unit was received which allowed three teams to be exercised.

Ludlum Model 3 portable survey meters have been purchased to replace CDV-700RPs. All nuclear power plant affected counties will receive the Ludlum Model 3 instruments. Additional Ludlum Model 3 instruments and model 730 dosimeters have been purchased to ensure all monitoring locations in these counties have the Model 3 instruments and to replenish dosimetry as needed. Ten piezoelectric dosimeter chargers have been received for SFY 2010 to replenish responder supply and additional ten will be purchased in SFY 2011.

FMT air sampling equipment from Radeco Corporation has been received and will replace the older air sampling units. Training and incorporation of the new air samplers into the FMT procedures will follow the BVPS evaluated exercise.

A committee, consisting of members from FENOC, ODH, and Ohio EMA, has been formed to evaluate dosimetry and instrumentation supplied to emergency workers. The committee has evaluated two different electronic dosimeters and is in the process of scheduling conference calls to discuss the evaluation of the units. The committee will next discuss and evaluate deployable monitoring systems similar to Pennsylvania's equipment. This committee will provide recommendations to the NEPAC to determine a long term equipment plan.

8. NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS) (ALL)

Efforts continue with the improvement of the Ohio Plan for Response to Radiation Emergencies at Commercial Nuclear Power Plants with regard to NIMS compliance. Ohio EMA will continue to revise the plan in accordance with NIMS requirements as inconsistencies are discovered. No formal Federal guidance has been provided to aid in this task. Further changes have been made to the 2009 revision of the REP Plan to enhance NIMS compliance. The 2010 REP Plan has been revised and submitted to FEMA and is awaiting approval.

9. **DHS COMPREHENSIVE REVIEW (EMA/ODH)**

The comprehensive reviews for Perry, Beaver Valley, and DBNPS were completed. The URSB Working Group has received a redacted report and is awaiting the final report. A briefing from FENOC is anticipated.

10. **STATE DOSE ASSESSMENT (ODH/EMA)**

The working group, along with FENOC, had undertaken an evaluation of available software. A meeting was conducted on August 26, 2009 to discuss a common dose assessment program. More meetings are anticipated in the future to further discuss development of the program.

The Radiological Accident Assessment Course (RAAC) was conducted at Ohio EMA from February 1-5, 2010. There were several members of the state dose assessment team to include primary and back up enrolled in the course.

11. **KI (ODH/EMA)**

All current issues have been addressed for public KI. The emergency worker KI will be the next issue to be addressed.

12. **HOSTILE ACTION BASED DRILLS (ALL)**

Each plant is required to complete a hostile action drill as a component of phase three of an industry / NEI initiative driven by an NRC requirement to include hostile action drills as a major element of REP. Hostile action drills were conducted for all three FENOC sites. The information and lessons learned from the hostile action drills will be collected, compiled and used during the rulemaking process. Upon completion of the hostile action drill program nationwide, outreach opportunities for states and locals will be scheduled. A public meeting conference call was held on December 17, 2009 to discuss these issues. Hostile action items will be phased into biennial exercises.

13. **REP GUIDANCE AND NRC RULEMAKING (ALL)**

Currently the NRC and FEMA released draft documents for public comment regarding radiological emergency preparedness. The comment period closed October 19, 2009. The Board has submitted comments to FEMA for consideration. The working group will continue to monitor the status of the draft documents. A nationwide survey was conducted to determine the states' top concerns regarding guidance. NUREG-0654 Supplement 3 draft is under review by the Working Group.

URSB RESOLUTIONS LOG

Resolution Number	Description of Action	Date Signed
09-04	Resolution submitting comment to DHS/FEMA on draft NUREG-0654 Supplement 4 and draft REP Program Manual	October 5, 2009
09-03	Resolution thanking Ramona Hauenstein for her service as secretary to the Utility Radiological Safety Board of Ohio	July 7, 2009
09-02	Resolution thanking Vernon Higaki for his service as FENOC Liaison to the Utility Radiological Safety Board of Ohio	April 6, 2009
09-01	Resolution approving the proposed rescission of Ohio Administrative Code Rule 4937-1-01 in favor of the public meetings rule of the Ohio Emergency Management Agency (OAC 4501:3-1-01)	April 6, 2009
08-01	Resolution thanking Roland Lickus for his service as NRC Region III Liaison to the Utility Radiological Safety Board of Ohio	July 7, 2008
07-01	Resolution for the Utility Radiological Safety Board Requesting FENOC Consider Comments as appropriate revisions to NORM-LP-5002, FENOC Position on Release In Progress.	April 9, 2007

Note: Only resolutions from the last five years are listed. For older resolutions please contact the URSB secretary.

URSB JOINT INSPECTION OBSERVATION PROGRAM



URSB JOINT INSPECTION OBSERVATION PROGRAM

The Joint Inspection Observation Program (JIOP) was implemented by the Board in April 1991 by adopting URSB Resolution 91-002, "Resolution Adopting General Agreement Between the U.S. Nuclear Regulatory Commission and Ohio's State Liaison Officer for State Observations of NRC Inspections of Nuclear Power Plants". The agreement allows URSB JIOP members to observe NRC inspections of PNPP and DBNPS. Under "adjacent state observation" status, a second agreement with NRC Region I allows JIOP participants to observe NRC inspections at the BVPS. A "guidelines document" has been developed setting the conditions and procedures for member agencies' participation in the program. This document includes the goals and objectives of the JIOP. The URSB JIOP Goals and Objectives are delineated below.

In SFY10 the URSB JIOP participants observed twelve NRC inspections. For each observation a report is generated and forwarded to the NRC for its review and comment. The table at the end of this section lists these reports for the past five years. All JIOP reports are available to the public by request to the URSB Secretary. Requests may be made by telephone at (614) 889-7150 or in writing to:

URSB Secretary
The Utility Radiological Safety Board
2855 West Dublin Granville Road
Columbus, Ohio 43235-2206

URSB JIOP Goals and Objectives

To observe NRC inspections at Ohio nuclear power facilities and BVPS.

- To participate with the NRC to observe inspections.
- To communicate to the public, URSB member agencies, and interested parties first-hand information obtained by observing inspections, in accordance with NRC protocol.
- To communicate with the NRC resident, regional, and national inspectors.

To raise issues of health, safety, and economic concerns with the Board.

- To observe NRC inspections and obtain timely, first-hand information which will assist in formulating state positions on public health, safety, performance, and/or cost issues.
- To maintain a historical database to monitor the economical production and safe operation of nuclear energy.

To provide the URSB with reports that identify the number of inspections observed during the quarter, summarize observation results and recommendation, and address comments made by the NRC and the public.

JOINT INSPECTION OBSERVATION PROGRAM REPORTS

JIOP REPORT NO.	DATE(S) OF INSPECTION	PLANT	AREA(S) OF INSPECTION	OBSERVING AGENCY
10-DBNPS-04	5/18-5/20/2010	DBNPS	Reactor Pressure Vessel Head Special Inspection	ODH
10-DBNPS-03	5/3-5/8/2010	DBNPS	Emergency Preparedness Inspection	EMA
10-DBNPS-02	4/19-4/23/2010	DBNPS	Radiological Hazard Assessment & Exposure Controls Program, Occupational ALARA Planning & Controls, In-Plant Airborne Radioactivity Control & Mitigation Program and Occupational Dose Assessment	ODH
10-PNPP-01	3/8-3/12/2010	PNPP	Industry Ground Water Protection Initiative, reactor Coolant System Activity and RETS/ODCM Radiological Effluent Controls	ODH
10-DBNPS-01	3/1-3/5/2010	DBNPS	Access Controls to Radiologically Significant Areas and ALARA Planning and Controls (Outage)	ODH
09-PNPP-07*	3/30-4/3/2009	PNPP	Access Controls to Radiologically Significant Areas and ALARA Planning and Controls	ODH
09-PNPP-06	11/16-11/20/2009	PNPP	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems	ODH
09-PNPP-05	11/2-11/6/2009	PNPP	Radiation Monitoring Instrumentation and Protective Equipment	ODH
09-PNPP-04	11/2-11/6/2009	PNPP	EP Routine/PI Verification	EMA
09-DBNPS-03	9/14-9/18/2009	DBNPS	Access Controls to Radiologically Significant Areas, ALARA Planning Controls and Occupational Exposure Control Effectiveness	ODH

09-DBNPS-02	8/25-8/28/2009	DBNPS	Industry Ground Water Protection Initiative and RETS/ODCM Radiological Effluent Controls	ODH
09-PNPP-03	7/6-7/10/2009	PNPP	ALARA Planning Controls	ODH
09-PNPP-02	3/2-3/6/2009	PNPP	Access Controls to Radiologically Significant Areas and ALARA Planning Controls	ODH
09-PNPP-01	2/2-2/6/2009	PNPP	Radioactive Materials Processing and Transportation	ODH
09-DBNPS-01	1/12-1/16/2009	DBNPS	Radioactive Materials Processing and Transportation and Reactor Coolant System Activity	ODH
08-DBNPS-03	11/17-11/21/2008	DBNPS	Effluent Treatment and Monitoring Systems	ODH
08-PNPP-04	10/20-10/24/2008	PNPP	ALARA Planning Controls and Reactor Coolant System Activity	ODH
08-PNPP-03	9/8-9/12/2008	PNPP	Occupational Exposure Control and Access Controls to Radiologically Significant Areas	ODH
08-DBNPS-02	8/25-8/29/2008	DBNPS	Access Controls to Radiologically Significant Areas and ALARA Planning Controls, Occupational Exposure Control Effectiveness, and Reactor Coolant System Activity	ODH
08-PNPP-02	5/13-5/16/2008	PNPP	Inspection for One or Two White Inputs in a Strategic Performance Area	EMA
08-PNPP-01	5/19-5/23/2008	PNPP	Radiological Environmental Monitoring Program, Radioactive Material Control Program, and Radiological Effluents	ODH
08-DBNPS-01	5/19-5/23/2008	DBNPS	Radiological Environmental Monitoring Program, Radioactive Material Control Program, and Radiological Effluents	ODH
08-01	1/07-1/11/2008	DBNPS	Access Controls to Radiologically Significant Areas and ALARA Planning Controls	ODH

07-13	12/10-12/14/2007	PNPP	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring	ODH
07-12	12/10-10/14/2007	DBNPS	Radioactive Materials Processing and Transportation	ODH
07-11	10/16-10/20/2007	PNPP	EP Routine Inspection/PI Verification	EMA
07-10	10/22-10/26/2007	PNPP	Access Controls to Radiologically Significant Areas and ALARA Planning Controls	ODH
07-09	8/6-8/10/2007	DBNPS	Access Controls to Radiologically Significant Areas	ODH
07-08	8/20-8/24/2007	PNPP	Radiation Monitoring Instrumentation and Protective Equipment	ODH
07-07	6/9-8/6/2007	DBNPS	Reactor Vessel Head Replacement Inspection	EMA
07-06	7/9-7/13/2007	BVPS	Radiation Emergency Monitoring Program	EMA
07-05	6/18-6/22/2007	DBNPS	Radiation Monitoring Instrumentation and Protective Equipment	ODH
07-04	7/16-7/20/2007	PNPP	Radioactive Materials Processing and Transportation	ODH
07-03	4/09-4/13/2007	PNPP	Access Controls to Radiologically Significant Areas	ODH
07-02	1/22-1/26/2007	DBNPS	Effluents	ODH
07-01	2/05-2/09/2007	BVPS	NRC Emergency Preparedness	EMA
06-10	11/1-12/15/2006	BVPS	Mitigating Systems Performance Index Verification	EMA
06-09	11/06-11/10/2006	PNPP	Access Controls to Radiologically Significant Areas	ODH
06-08	10/23-11/03/2006	PNPP	Human Performance Action Item	ODH
06-07	7/17-7/28/2006	PNPP	Action Item Review	EMA
06-06	6/5-9/2006	PNPP	Access Control to RAD Areas	EMA
06-05	6/12-16/2006	PNPP	Human Performance & Action Items	EMA
06-04	3/9-16/2006	PNPP	Access Control & ALARA	EMA

06-03	2/13-17/2006	DBNPS	Corrective Action Item Review	EMA
06-02	2/3-17/2006	PNPP	EP Program	EMA
06-01	1/19-13 1/17/2006	PNPP	Action Item Review	EMA

* Denotes report number assigned late

Note: Reports will not be made public until after the NRC has released their report, per NRC protocol

FINANCIAL REPORT



DESCRIPTION	SFY06	SFY07	SFY08	SFY09	SFY10
Appropriations					
Emergency Management	\$1,110,459	\$1,198,319	\$1,434,242	\$1,374,837	\$1,319,926
Health	\$793,000	\$793,000	\$815,000	\$835,500	\$850,000
Environmental Protection	\$263,449	\$276,352	\$279,927	\$257,938	\$285,982
Agriculture	\$70,286	\$73,059	\$128,723	\$134,389	\$121,022
Commerce♦					
Public Utilities Commission♦					
Total Appropriation	\$2,237,194	\$2,340,730	\$2,657,892	\$2,602,664	\$2,576,930
Expenditures					
Emergency Management	\$1,110,459	\$1,202,035	\$1,492,342	\$1,337,042	\$1,028,826
Health	\$551,674	\$721,320	\$789,884	\$836,042	\$850,000
Environmental Protection	\$204,842	\$249,540	\$248,002	\$235,179	\$254,143
Agriculture	\$70,286	\$73,016	\$128,723	\$113,352	\$86,105
Commerce♦					
Public Utilities Commission♦					
Total Expense (Year-end Balance)	\$1,937,261	\$2,245,911	\$2,658,951	\$2,521,615	\$2,219,074

♦ Denotes agency does not receive funding from FENOC

AGENCY OVERVIEWS



OHIO EMERGENCY MANAGEMENT AGENCY

The Ohio Emergency Management Agency (Ohio EMA) was established under Ohio Revised Code Chapter 5502.22 as a division of the Department of Public Safety. The mission of the Ohio EMA is to coordinate activities to mitigate, prepare for, respond to and recover from disasters. Phases of mitigation, preparedness, response and recovery are designed to minimize effects upon the population caused by all hazards. The agency maintains the State Emergency Operation Center, the data links to nuclear power plants, and communications to subdivisions. The Ohio EMA implements federal and state policies and programs, and supports county emergency management agencies.

The Executive Director of Ohio EMA supervises the day-to-day operations of the agency's professional and technical support personnel and serves as the chair of the URSB.

The Ohio EMA is organized into three divisions each consisting of several branches. The Operations Division is comprised of the Radiological; Readiness and Response; Plans; Field Operations, Training & Exercise Branches. The Mitigation, Recovery, and Preparedness Grants Division is comprised of the Mitigation; Recovery and; Grants Branches. The Technical Support Division is comprised of the Communication; Data Management; and Facilities, Logistics and Calibration Branches. The Ohio EMA is responsible for Nuclear Power Plant incident response, accident assessment, instrument maintenance, training, planning, exercises and drills, utility, federal, and public interfacing and facilitation of the URSB. In addition, Ohio EMA continues to monitor activities relating to high level radioactive waste, and coordinates the transport of spent fuel and high level radioactive materials across Ohio.

Nuclear Power Plant Exercises and Drills

Ohio EMA is responsible for the coordination of State Agency participation in nuclear power plant exercises. These exercises can take the form of small communications tests involving only State and County EMAs to major federally evaluated exercises. In SFY10 there was one federally evaluated exercise.

Beaver Valley Power Station Exercise:

Preparation for this exercise began in 2009 with the first parameters meeting conducted on June 23, 2009. The 100-day meeting to finalize the extent of play was held on December 1, 2009.

The Beaver Valley Power Station (BVPS) exercise was conducted on April 20, 2010. The dry run was conducted on March 23, 2010, with a second dry run performed on April 13, 2010 to ensure improvements in identified communication problems. This was a full participation exercise for the State of Ohio and Columbiana County. The BVPS After Action Report/Improvement Plan has been received. There was one Deficiency and two Areas Requiring Corrective Action (ARCAs) identified for the State of Ohio. There was one ARCA identified for Columbiana County and two previously identified ARCAs were successfully re-demonstrated.

The Deficiency was identified under Criterion 4.a.2-Plume Phase Field Measurements and Analyses, whereby out of the three State Field Monitoring Teams (FMTs) only one FMT received the message that a release of radioactive materials had started and that ODH had recommended the ingestion of KI for all emergency workers within the 10-mile EPZ.

One ARCA for the State was identified under Criterion 2.b.1—Radiological Assessment and Protective Action Recommendations and Decisions for the Plume Phase of the Emergency, whereby the State Dose Assessment Team did not demonstrate a reliable capability to independently validate dose projections provided by BVPS or Columbiana County.

The second ARCA for the State was identified under Criterion 4.a.3—Ambient radiation measurements are made and recorded at appropriate locations, and radioiodine and particulate samples are collected. One FMT recorded the results of radioactive material present on a particulate filter and silver zeolite cartridge in the reverse order on the State form.

The ARCA for Columbiana County was identified under Criterion 5.a.1—Activities associated with primary alerting and notification of the public are completed in a timely manner following the initial decision by authorized offsite officials to notify the public of an emergency situation, whereby the precautionary actions decided during the exercise included a restriction of after hour school activities within the 10-mile EPZ and for residents within the 10-mile EPZ to go indoors to monitor EAS. However, the precautionary action for residents within the 10-mile EPZ to go indoors and monitor EAS stations was not included in the EAS message which was not consistent with the precautionary action decision.

A schedule of corrective actions for the above findings has been submitted to FEMA which includes revisions of procedures and additional training. The State Deficiency and the 4.a.3 ARCA will be re-demonstrated on July 22, 2010. The State 2.b.1 ARCA will be re-demonstrated during the Perry Nuclear Power Plant exercise on September 28, 2010. The Columbiana ARCA will be re-demonstrated during the Beaver Valley Power Station exercise on June 19, 2012.

Drills

Ohio EMA participated with applicable counties in the following integrated drills:

Perry Nuclear Power Plant on July 17, 2009 and August 18, 2009

Beaver Valley Power Station on July 7, 2009 and September 17, 2009

Davis-Besse Nuclear Power Station on September 17, 2009

The Ingestion Zone Recovery Re-entry Advisory Group (IZRRAG) annual drill was conducted on November 12, 2009. The Ohio EMA, Department of Health, Department of Natural Resources, Department of Agriculture and Environmental Protection Agency participated. Procedures were reviewed and samples (simulated) were taken using sampling methodology. The drill was successful. Results of the drill included the need to revise procedures and forms.

The MS-1 (Medical) drill was conducted on October 27, 2009 for the Salem Hospital in Columbiana County. No significant problems were identified.

Nuclear Power Plant Incidents

There was one classifiable event in SFY10 for FENOC plants. BVPS declared a Notice of Unusual Event (NOUE) on November 24, 2009, due to unidentified leakage from the reactor coolant system at a rate of greater than 25 gallons per minute into the pressurizer relief tank of Unit 2. The leakage resulted from the lifting of a suction relief valve during shutdown of the residual heat removal (RHR) system. The leakage stopped when the two separate RHR systems were isolated from each other. The suction relief valve was open for approximately nine minutes.

Meetings and Conferences

State Liaison Officers (SLO) Triennial Conference

Carol O'Claire, the NRC State Liaison Officer for Ohio, attended the State Liaison Officers (SLO) Triennial Conference on August 18 and 19, 2009 in Bethesda, Maryland. The theme of the Conference was "Cooperation--Communications--Coordination" and included many topics of interest to the SLOs' such as the panel discussion on "Outlook on Emergency Preparedness Rulemaking and Hostile Action-Based Drills". Executive Director, Nancy Dragani, participated

in a panel discussion with NRC representatives, Allan Barker and Melvyn Leach, on "Cooperation with State Emergency Response Organization Officials".

FEMA Region V Scheduling Conference

Carol O'Claire attended the Conference held in Lisle Illinois on November 4 – 6, 2009. Topics of discussion included the Homeland Security Exercise Evaluation Program (HSEEP) integration, revised Radiological Emergency Planning (REP) Planning Course, updates to the siren design reports, the new definition of “reasonable assurance”, status of the proposed REP Program Manual comments, hostile action based exercises, and the REP exercise schedule. For Ohio, the Davis-Besse Nuclear Power Station (DBNPS) full participation exercise has been scheduled for May 5, 2015. Subsequent to the Conference, Ohio is awaiting FEMA’s approval to change the May 17, 2011 DBNPS full participation exercise to a May 10, 2011 partial participation exercise due to a conflict with the FLE (Federal Level Exercise) scheduled for the week of May 17, 2011.

Regulatory Updates

Proposed Changes to the Radiological Emergency Planning Documents

The URSB comments on the proposed REP changes to include the REP Program Manual and NUREG-0654 Supplement IV were submitted to Homeland Security/FEMA on October 16, 2009. In November, a national REP survey was conducted to determine the top concerns on both programmatic and policy issues. A total of 31 states participated, 27 of the 31 with nuclear generating plants and four with plants impacting their state. The number one program concern with the proposed REP Program Manual was defining the term “should”. The second program concern was HSEEP integration guidance. The top policy concern was the need to update NUREG 0654 and the second policy concern was defining the regulatory standing of the REP Program Manual. An additional concern was that the REP Program Manual update should be suspended to allow state and local jurisdictions to be engaged in the process. On November 23, 2009 a letter was sent from the National Emergency Management Association (NEMA) to FEMA submitting the results of the national survey and offering the new REP Subcommittee to FEMA as a mechanism to address the issues. FEMA’s response to the letter included the willingness to work with the REP Subcommittee. In addition, FEMA is investigating additional options for improving stakeholder input into the draft REP Program Manual process.

Changes to NUREG-0654, Supplement 3

NUREG-0654/FEMA-REP-1, Rev. 1, Supplement 3, “Guidance for Protective Action Recommendations for General Emergencies” is currently under revision. Comment period ended May 24, 2010. The revised draft document reflects insights the NRC has gained through study of protective action strategy efficacy documented in NUREG-0653, “Review of NUREG-0654, Supplement 3, Criteria for Protective Action Recommendations for Severe Accidents”. The NRC has coordinated the draft with FEMA. The draft incorporates the following elements:

- Increased offsite response organization involvement in development of the protective action strategy.
- Consideration of staged evacuation as the initial protective action at General Emergency.
- Increased use of shelter-in-place for certain scenarios.
- Guidance to improve communications with the public before and during an emergency.

A public meeting was held April 13, 2010 in Bethesda, Maryland to discuss the proposed revision. Ohio EMA participated by conference call.

NRC Coordination

Ohio EMA conducted a conference call with NRC to determine NRC involvement in an emergency/exercise involving the BVPS. It was decided that a call would be made to the SEOC from NRC Region I requesting a point of contact for further discussion. The NRC is willing to provide information to the SEOC regarding the emergency. The NRC Region I will coordinate with NRC Region III. NRC Region III may send a representative to the SEOC to act as a liaison between the State and the NRC for the emergency. This process was tested during the April 20 BVPS exercise.

Emergency Planning

Ohio EMA completed the annual revision of The Ohio Plan for Response to Radiation Emergencies at Commercial Nuclear Power Plants in March 2010.

OHIO DEPARTMENT OF HEALTH

The Ohio Department of Health (ODH) provides support to the URSB through its statutory functions in matters of radiation protection. ODH is designated the Ohio radiation control agency in accordance with Ohio Revised Code 3748.02. ODH serves as the lead state agency on all health physics issues within Ohio, monitors the radiological performance of the nuclear power plants, provides emergency response personnel and dose assessment team leadership in the event of a radiological emergency, observes the evaluation of hospitals abilities to treat contaminated injured people, ensures radiological environmental monitoring outside of commercial nuclear power plant boundaries and provides input on URSB Working Group initiatives.

Nuclear Power Plant Emergency Response Exercises

ODH staff fully participates in nuclear power plant exercises. ODH participated in the April 2010 Beaver Valley Power Station (BVPS) dry-run and evaluated exercises. ODH provided key personnel to the Executive Room and Dose Assessment Room, as well as liaison positions with the county, the utility, and the Joint Information Center. Field Monitoring Team (FMT) and Sample Screener positions were also filled by ODH staff. In preparation, ODH staff attended several training sessions, including: an in-house nuclear power response overview, plant-specific systems training, tabletop exercise, and Field Monitoring Team training.

Ingestion Zone Recovery and Reentry Advisory Group (IZRRAG) training was conducted in October 2009, and an IZRRAG sampling drill was conducted in November 2009. As the lead agency, ODH worked with the other IZRRAG agencies in reviewing and revising procedures.

MS-1 medical drills are routinely observed by ODH staff at designated hospitals inside the 10-mile Emergency Planning Zone. In October 2009, ODH staff observed an MS-1 drill at Salem Community Hospital in support of the BVPS full participation exercise that later took place in April 2010 (off-year evaluation). The hospital was adequately prepared to treat an injured individual contaminated with radioactive material.

Utility Radiological Safety Board (URSB) Working Group Activities

ODH staff attended each of the monthly URSB Working Group meetings, the quarterly Nuclear Emergency Planning Advisory Committee (NEPAC) meetings, and maintains a role in URSB After-Action Group meetings. These meetings provide an opportunity to collaborate with URSB member agencies and utility and local government representatives for planning purposes,

resolution of common issues, and identification and tracking of corrective actions documented during exercise activities.

ODH regularly collaborates with member agencies and First Energy Nuclear Operating Company (FENOC). Such activities include the presentation of FMT training with Ohio EMA in March 2010, review of the *Ohio Plan for Response to Radiation Emergencies at Commercial Nuclear Power Plants* (REP Plan), participation in the nuclear power training working group, and attendance at the BVPS Tri-State quarterly meetings.

Joint Inspection Observation Program (JIOP)

ODH Bureau of Radiation Protection (BRP) staff participates with the United States Nuclear Regulatory Commission (NRC) in the Joint Inspection Observation Program (JIOP) inspections. The ability for ODH staff to have unescorted access to FENOC facilities has proven beneficial through the reduction of required support from both NRC and FENOC, and has allowed ODH personnel to have greater latitude in their participation. Fourteen JIOPs covering twenty topic areas were completed by ODH staff in the last 12 months. Topics included:

Inspection Topic Areas	Facility	Date
Implementation of Industry Groundwater Protection Voluntary Initiative	DBNPS	August 2009
RETS/ODCM Radiological Effluents		
Access Control to Radiologically Significant Areas	DBNPS	September 2009
ALARA Planning and Controls		
Occupational Exposure Control Effectiveness		
Radiation Monitoring, Instrumentation, and Protective Equipment	PNPP	November 2009
Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		
Reactor Pressure Vessel Head Repairs and Verification	DBNPS	March 2010
Radiological Hazard Assessment and Exposure Controls		
Occupational ALARA Planning and Controls		
Reactor Coolant System Activity	PNPP	March 2010
Industry Groundwater Voluntary Protection Initiative		
Reactor Pressure Vessel Head Repairs and Verification	DBNPS	April 2010
Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems	DBNPS	April 2010
Reactor Coolant System Activity		
Radiological Hazard Assessment and Controls	PNPP	April 2010
In-plant Airborne Radiation Control and Mitigation		
Occupational Exposure Control Effectiveness		
Occupational ALARA Planning and Controls		
Reactor Pressure Vessel Head Repairs and Verification	DBNPS	May 2010

Findings from these inspections may be found on the NRC website. ODH observations during the inspections did not differ significantly from those of NRC.

Midwestern Radioactive Material Transportation Committee

This committee provides a collaborative forum for the states and the Department of Energy (DOE) in the development of policies and procedures for the safe transportation of spent nuclear fuel, transuranic waste, low-level radioactive waste, and highway route controlled quantities of radioactive material. ODH works with Ohio EMA and PUCO in presenting Ohio's position on transportation issues. Each Midwestern state has a gubernatorial and legislative appointee to the committee. Robert Owen, Chief of the ODH BRP, is the gubernatorial appointee to the committee.

A fee caucus has been established for states charging fees for the transport of radioactive materials as listed above. Ohio rules in support of charging transport fees are under consideration by PUCO. Reciprocal rail inspection procedures are being developed, as are planning guides for shippers of spent fuel and high-level radioactive waste. These procedures will foster consistency in programs and confidence in the inspections performed in other states.

Potassium Iodide (KI)

In early May 2009, ODH acquired potassium iodide (KI) from the NRC to replace the existing stock which expired on May 31, 2009.

To facilitate distribution of the KI, ODH provided materials to the counties to break the bulk supplies down into smaller amounts that are easier to distribute to the public. The materials consist of zippered bags that are pre-printed with drug information about the KI, and a pre-folded copy of the manufacturer's package insert. These materials were delivered to local health departments by ODH staff between September 14th and 25th, 2009.

Davis-Besse Pressure Vessel Head Repairs

ODH closely monitored the situation regarding the cracking of control rod drive mechanism penetrations at the Davis Besse Nuclear Power Station (DBNPS). ODH staff members participated in three individual special inspections conducted by NRC through the JIOP program. ODH staff participated in weekly conference calls hosted by NRC to discuss issues, events, and timelines associated with the repairs and return of the plant to operational status.

Radiological Environmental Monitoring Activities

ODH staff oversees offsite radiological environmental monitoring activities at DBNPS, Perry Nuclear Power Plant (PNPP), and BVPS. Ground water, surface water, potable water, bottom sediment, milk, fish, fruit, vegetable and air samples are collected by local health departments (under contract with ODH) and analyzed by the ODH Laboratory. All sample results indicated that radioactivity levels are at or near the Lower Limit of Detection (LLD) and well below the NRC release criteria.

During the fourth quarter of 2009, each contractor collecting air and water samples for ODH was audited. Calibration verifications of each dry gas meter used for air sampling were also performed during the audits. Upon completion, all equipment utilized was found to be functioning within acceptable tolerance limits. Environmental contractor audits for 2010 are underway and will be completed by the end of the year.

In 2010, a change occurred in the location where milk samples are collected near PNPP. There has not been a herd of milking animals within five miles of the plant since the early 1990's.

During the PNPP 2008 land use census, an indicator location was found that is approximately 2.5 miles from the plant in sector E. An indicator location is a site that is more likely to exhibit effects caused by plant operation in part due to their proximity to PNPP and by residing in the prevalent wind direction. The new site, identified as location #18, will provide split samples with PNPP once the farm has a sufficient number of goats to provide samples.

The ODH Annual Environmental Monitoring Report for 2009 was distributed in August 2010.

Other Related Items

A member of the ODH staff was able to participate in the FEMA Region V scheduling conference. The conference featured speakers from FEMA Region V, FEMA Headquarters, NRC and various agreement states. Of particular value were presentations by the states of Wisconsin and Minnesota regarding their recent ingestion exercises. These presentations featured different ways in which to generate data for the exercise, discussion of how to transition between time points within the exercise and examples of briefing aides for the evaluators.

Seven ODH staff members had the opportunity to participate in, and pass, the FEMA Radiological Accident Assessment Concepts (RAAC) course. The course is an intensive review of dose assessment activities that would be conducted during both the emergency and intermediate phases of a nuclear power plant accident. The course included manual methods of dose calculation, use of the RASCAL program, and calculation of various ingestion limits.

ODH staff has started reviewing dose assessment programs in an effort to familiarize and help guide the identification of a new assessment program. RASCAL 4 is currently under evaluation and holds promise. Exelon and Entergy, along with the NRC, have developed an alternate interface and output module to the RASCAL software designed expressly to support nuclear power stations. They are proposing to make the software, **Unified RASCAL Interface (URI)**, available for use at other US nuclear sites, and offsite response organizations in 2011.

A “default” Protective Action Recommendation (PAR) was developed and incorporated into ODH procedures. This default PAR can be used when insufficient information has been received from the utility to allow the Dose Assessment Team to make a dose projection within 30 minutes from the start of the release.

OHIO ENVIRONMENTAL PROTECTION AGENCY

The Ohio Environmental Protection Agency’s (Ohio EPA) purpose is to maintain a safe and healthy environment for the population of Ohio. To support the goals of the URSB, the Ohio EPA Radiological Safety Program collects and monitors performance trends of monthly, annual, and special operating reports on air, water, and hazardous waste generation from the nuclear plants. A synopsis is presented to the URSB on a quarterly basis. The Agency has one full time staff member and twenty-five other employees who devote a portion of their time to the activities supported by the Board. Each one contributes their particular expertise to the work of the Board, as it is needed.

Nuclear plants have permits for stationary combustion sources such as auxiliary boilers and the emergency diesels. There were no air permit violations by the nuclear plants for in SFY10. The Nuclear Regulatory Commission regulates other routine air emissions associated with the operation of a nuclear power plant.

Ohio EPA receives and evaluates monthly wastewater discharge reports submitted under National Pollutant Discharge Elimination System (NPDES) permits. These permits establish

limits on discharges of; hydrocarbons, metals, treatment chemicals, dissolved oxygen, and waste heat from the plant sewer and process effluent outfalls. There were no reports of NPDES violations in SFY2010.

Any facility generating more than 200 pounds of hazardous waste, as defined in ORC 3745 Sections 50 and 51, a month must register with Ohio EPA and obtain a generator's identification number. This registration allows the plant to store and manifest hazardous waste for shipment off-site. The plants must make an annual report each calendar year and submit the report to Ohio EPA, Division of Hazardous Waste Management. These reports detail the types of waste generated and the quantities involved. These reports also list where each waste is sent for treatment, storage, or disposal. There were no known discrepancies or violations of either plant's permit in SFY2010.

National drinking water standards have been established to ensure that our drinking water does not contain unhealthy levels of contaminants. Contamination standards for inorganic chemicals, volatile organic chemicals, pesticides, and herbicides are expressed as Maximum Contamination Limits (MCLs). Public water providers must test their raw and finished water regularly for 83 substances, and submit the results to Ohio EPA. There were no elevated readings reported in drinking water supplies for SFY2010.

While there has never been an accident involving a release of radiation from either plant site, the Division of Emergency and Remedial Response, Emergency Response Unit has committed staff to act as environmental state and county liaisons if an event should occur. In addition, Ohio EPA provides a sampling team of 18 people to measure any deposition that could affect soil, surface water, snow, or vegetation. This sampling team, known as the Radiological Assessment Team is continually trained and briefed on any changes affecting the team's role. Team membership includes most Ohio EPA divisions to ensure representation of all needed programmatic expertise. This team participates in post plume exercises and drills run by the State or the plants as part of their regular exercise schedule. This team participates in training other than drills and exercises twice a year to maintain their response readiness.

OHIO DEPARTMENT OF AGRICULTURE

The Ohio Revised Code directs the Ohio Department of Agriculture (ODA) to protect the food supply as it relates to Food Safety and Animal Health. Additionally, the Code of Federal Regulations directs ODA to promote public safety involving nuclear power plant operations. ODA, in coordination with the United States Department of Agriculture (USDA) and the Ohio State University Cooperative Extension Service, estimates damage to crops and livestock from radiation incidents.

ODA maintains emergency response plans and monitoring programs in order to respond to and mitigate the effects of nuclear incidents. ODA coordinates procedures for the protection and recovery of livestock, poultry, forage and browse plants from radiation effects. ODA reviews and maintains embargo and quarantine procedures for all affected food, agricultural commodities, and livestock within an affected area and for possible outlets for contaminated products.

If an incident occurs, ODA assesses and deals with problems impacting agriculture and its related industries. ODA, in coordination with the Ingestion Zone Recovery and Re-entry Advisory Group (IZRRAG) and the counties involved, determines affected target groups including farmers, food producers, distributors and processors in the ingestion exposure pathway and gives them emergency response information.

Nuclear Power Plant Emergency Planning

ODA attends monthly Utility Radiological Safety Board (URSB) Working Group meetings, Nuclear Emergency Planning Advisory Committee (NEPAC) meetings and After Action Group meetings.

ODA continues to participate in the scheduled IZRRAG meetings to review and revise the Ohio Plan for “Response to Radiation Emergencies at Commercial Nuclear Power Plants” procedures and advisories in preparation for nuclear power plant training, exercises or related emergencies.

Other Related Items

The Ohio Agriculture Brochure was reviewed and updated by IZRRAG team members in 2009 and distributed by ODA. The brochure is distributed to Ohio food producers, processors and distributors located within a ten mile radius of a nuclear power plant, and the brochure is made available to counties within a fifty mile radius of those plants.

ODA participated in the IZRRAG training conducted on September 9, 2009 and the Tabletop Drill held on October 22, 2009. ODA also participated in the Field Team Center/Sampling Screening Point activities conducted at EMA on November 12, 2009.

In addition, ODA participated in the Beaver Valley Full Participation Exercise held after hours on April 20, 2010 in the Emergency Operations Center.

OHIO DEPARTMENT OF COMMERCE DIVISION OF INDUSTRIAL COMPLIANCE & LABOR

The overall mission of the Ohio Department of Commerce (ODC), Division of Industrial Compliance & Labor is to serve Ohio by promoting the safety and soundness of our customer industries through an innovative and effective team of highly motivated employees. The ODC is one of the state's chief regulatory agencies. ODC is different from most state agencies, since it must operate like a private business enterprise as opposed to being funded primarily by Ohio's General Revenue Fund dollars. The agency exists on the fees and assessments from the industries it regulates.

URSB Involvement

ODC is a member of the Ohio Utility Radiological Safety Board (URSB). ODC is committed to help ensure nuclear safety for the citizens of Ohio by monitoring the Davis-Besse and Perry Nuclear Power Plants quality assurance programs.

Agency Specific Activities

During SFY10, ODC continually monitored the Davis-Besse and Perry Nuclear Power Plants In-service Inspection Program of Nuclear Power Plant Components. Chapter 4101:4-5 of the Ohio Administrative Code mandates this monitoring. In this chapter it refers to Section XI, Rules for In-service Inspection of Nuclear Power Plant Components, of the ASME Boiler and Pressure Vessel Code. This Section provides rules for the examination, testing, and inspection of components and systems in a nuclear power plant.

The rules of this Section constitute requirements to maintain the nuclear power plant and to return the plant to service, following plant outages, in a safe and expeditious manner. The rules require a mandatory program of examinations, testing, and inspections to evidence adequate safety. The rules also stipulate duties of the Authorized Nuclear In-service Inspector to verify

that the mandatory program has been completed, permitting the plant to return to service in an expeditious manner.

The Owner of the nuclear power plant is assigned the responsibilities to develop a program, which will demonstrate conformance to the requirements of this Section. These responsibilities include: (a) Provision of access in the design and arrangement of the plant to conduct the examination and tests; (b) development of plans and schedules, including detailed examination and testing procedures for filing with the enforcement and regulatory authorities having jurisdiction at the plant site; (c) conduct of the program of examination and tests, system leakage and hydrostatic pressure tests, as well as in-service tests of pumps and valves; (d) recording of the results of the examinations and tests, including corrective actions required and the actions taken.

Duties of the Authorized Nuclear In-service Inspector are assigned by Section XI to verify that the responsibilities of the Owner and the mandatory requirements of this Section are met. Duties performed this past fiscal year by the Authorized Nuclear In-service Inspectors included: (a) witnessing of pressure tests; (b) reviewed nondestructive examination procedures and repair programs; (c) verified that the visual examinations and tests on pumps and valves had been completed and the results recorded.

Future Activities

The ODC Staff will continue to monitor the In-service Inspection Programs of Davis-Besse and Perry Nuclear Power Plants, and will provide technical assistance to the URSB when questions arise regarding the requirements of ASME Section XI.

PUBLIC UTILITIES COMMISSION OF OHIO

The Public Utilities Commission of Ohio

The Public Utilities Commission of Ohio (PUCO) works to assure all residential and business consumers access to adequate, safe and reliable utility services at fair prices, while facilitating an environment that provides competitive choices. The PUCO regulates electric, natural gas, telecommunications, water/wastewater and transportation companies operating in the State of Ohio.

The PUCO Transportation Department

The PUCO Transportation Department works to facilitate safe and secure commercial transportation on public highways, railroads, and at transportation facilities as well as promote quality and equitable service in a proactive manner for the public and commercial carriers in the household goods, bus, and ferryboat industries.

The PUCO Transportation Department is responsible for enforcing state and federal motor carrier and rail safety requirements within the state of Ohio.

Transport of Radioactive Materials – PUCO Regulatory Responsibilities & Capabilities

The Governor has designated the PUCO as the state's routing agency for radioactive materials and spent nuclear fuel. The PUCO Transportation Department is responsible for the enforcement of federal and state regulations governing the highway and railroad transport of hazardous materials, including radioactive materials. The Transportation Department staff includes fourteen Hazardous Materials Specialists and 1 supervisor trained to standards prescribed by the United States Department of Transportation (US DOT), the Federal Motor Carrier Safety Administration (FMCSA) and the Commercial Vehicle Safety Alliance (CVSA). These personnel are certified to

conduct inspections of highway radioactive materials shipments using the CVSA Level VI, Enhanced North American Standard (NAS) Inspection for Radioactive Shipments. The Level VI inspection procedure is limited to radiological shipments and includes inspection procedures of the US DOT/CVSA NAS Level I inspection. The Level VI inspection procedures include US DOT radiological requirements and stringent “out-of-service criteria” for trucks transporting the materials. CVSA Level VI inspections include close examination of the driver, the vehicle, and the radioactive materials packaging and cargo. Radioactive materials shipments that are not examined under the Level VI process are inspected using the North American Standard Level I procedures. Also, several PUCO Transportation Department personnel are certified by the US DOT Federal Railroad Administration (FRA) to inspect rail shipments of radioactive materials. Along with checking for compliance with the US DOT Hazardous Materials Regulations, these PUCO personnel are also FRA certified to inspect rail equipment, track, and operating practices.

When encountered in transportation, PUCO HM Specialists regularly inspect packaging of Class 7 materials that are not subject to the CVSA Level VI inspection criteria. These inspections include a radiological survey. These personnel are also trained in radiological decontamination and control procedures found in 49 CFR 173.443.

PUCO personnel often work very closely with Ohio EMA and ODH personnel to coordinate and conduct inspections of high level and special interest radioactive materials shipments. This includes radioactive industrial sources, shipments of radioactive waste from the decommissioning of US DOE facilities in Ohio as well as containers of depleted Uranium Hexafluoride (UF⁶) in transit from Oak Ridge, TN to the US DOE Piketon, OH facility. PUCO personnel inspect and escort all US DOT regulated Highway Route Controlled Quantities (HRCQ) and Quantities of Concern (QC) shipments that enter or travel through Ohio.

NUCLEAR POWER PLANT ACTIVITIES



BEAVER VALLEY NUCLEAR POWER STATION



The Beaver Valley Power Station (BVPS) is located in Shippingport, Pennsylvania on the Ohio River approximately 5 miles from the Ohio border. The plant is a two-reactor site, with Unit 1 commencing operation in October 1976 and Unit 2 in November 1987. Beaver Valley Unit 1 and Unit 2 are owned by First Energy Nuclear Operating Company and operated by First Energy Nuclear Operating Company.

The plant operated safely and reliably during the year. An Unusual Event was declared at Unit 2 on November 24, 2009. The Unusual Event was declared due to unidentified leakage at a rate of greater than 25 gallons per minute from Train A of the Residual Heat Removal (RHR) system. The leak occurred while the Train A of the RHR was being shutdown. The cause of the leakage was pressure from the operable Train B RHR caused a suction relief valve for Train A to open for approximately nine minutes. The problem was resolved when the two equipment trains were isolated from one another.

Outage

The Unit 2 refueling outage lasted October 12 - November 16, 2009 during which approximately 1800 work orders were completed. The major work activities included; refueling the reactor, external and internal reactor head inspections including ultrasonic testing of the control rod drive mechanisms (CRDM), repairs to head penetrations 16, 51, 56 and 61, inspections of all three steam generators and cooling tower maintenance.

Unit 2 Spent Fuel Pool

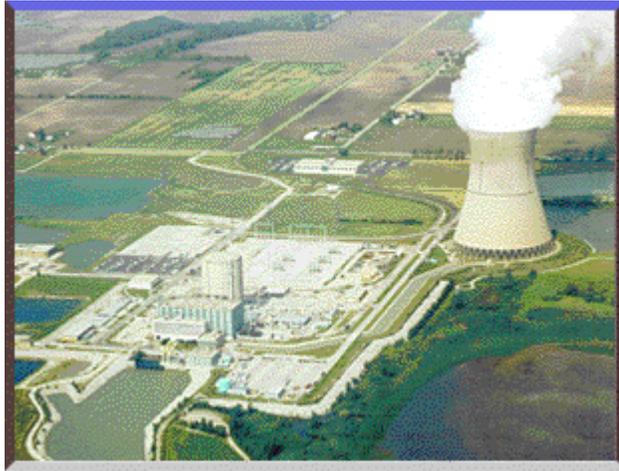
Spent fuel storage space in the Unit 2 Spent Fuel Pool is limited and the pool needs re-racked. If the re-rack is not done “full core offload capability” would be lost after 2R15. A complete spent fuel storage rack replacement will increase the total number of fuel storage cells from 1,088 to 1,690 cells and will provide adequate storage capacity until approximately 2025, when dry cask storage will be required. The pool will be re-racked in a Mixed-Zone Three region (MZTR) storage arrangement. FENOC submitted a Licensing Amendment Request (LAR) to NRC on April 9, 2009 and the NRC is expected to approve the LAR and issue a SER in August 2010. Installation will commence by October 2010 with a projected completion date of August 2011.

Sirens

On February 5th and 6th 2010, heavy snow resulted in several power outages throughout Beaver County. As a result of the power outages approximately 35% of the EPZ sirens were out of

service (42 of 119). The number of inoperable sirens exceeded Beaver Valley's 25% criteria which requires a report per 10CFR50.72 (b) (3) (xiii) which was made (Event number 45683). The NRC Resident Inspector was also notified. All but one siren's power was restored by February 11, 2010. Power had been restored but accumulation of snow had to be cleared to access the equipment. Snow and ice were also reported on the siren head. By February 20, 2010, the siren was tested and returned to service. During this event, the counties were periodically updated to ensure an accurate list of out of service sirens was maintained.

DAVIS-BESSE NUCLEAR POWER STATION



FirstEnergy Nuclear Operating Company's Davis-Besse Nuclear Power Station (DBNPS), is near Oak Harbor, Ohio in Ottawa County. The plant is owned by FirstEnergy and operated by the FirstEnergy Nuclear Operating Company (FENOC).

The plant operated safely and reliably during the year and there were no declared emergencies during the reporting period.

Outage

During the 16th refueling outage in the Spring of 2010 extensive testing/inspections of the 69 CRDM nozzles located in the reactor vessel head was planned and completed. The Reactor Vessel Head Project Team identified a total of 16 CRDM nozzles for modification through a series of ultrasonic (UT) tests, bare head metal visual inspections and dye penetrant tests (PT). Eddy current testing (ECT) was performed on each of the CRDM nozzles J-groove welds. This state of the art testing method was new to DBNPS, but has been successfully used on another B&W reactor vessel head, as well as at BVPS.

The repairs and subsequent testing of one hundred percent inspection of the nozzles by a diverse series of nondestructive tests were completed in June, 2010. All modified nozzles had final UT and PT exams to ensure they were ready for service. All other nozzles satisfactorily passed axial UT exams, circumferential UT exams, the bare head metal visual examination, and either a manual PT of the J-groove weld or a remote ECT of the J-groove weld to ensure they were also ready for service.

The plant put into place an aggressive monitoring program and will replace the head with a new one by the end of 2011. The new head is more resistant to the stress corrosion cracking seen throughout the industry. The unit returned to power in late June, 2010.

Previous Alert due to explosion in the Main Switchyard (EAL 7.D.2) NRC inspection

The DBNPS Control Room received indications that 1 of the 2 switchyard buses was de-energized on June 25, 2009. A subsequent walkdown of the switchyard determined that a potential transformer that monitors voltage on the 'B' phase of the 'J' bus was destroyed. The isolation of the 'J' bus results in the #1 Startup Transformer also being de-energized, which placed the station in a 72 hour Limiting Condition of Operation per Technical Specification 3.8.1. The catastrophic failure of the Constant Current Potential Device (CCPD) on 'J' Bus caused a fire in the switchyard. Offsite assistance from Carroll Volunteer Fire Department was requested, they responded to the station, but the station fire brigade extinguished the fire prior to their arrival.

The event occurred outside of the Protected Area, did not involve any radioactive systems (i.e. no radiological release or potential for release) and no personnel injuries occurred as a result of this event. The 'J' Bus was returned to service and declared operable at 23:05 hours on Friday night (June 26 2009).

The NRC performed an onsite inspection August 4-6, 2009 collecting information on this event. On December 28, 2009 the NRC issued their preliminary report and on February 25, 2010 NRC issued their final report. This report identified:

- A White Finding for the missed emergency classification.
- A non-cited violation for the procedure failing to provide clear and consistent guidance for notification to the State and local counties.
- A licensee identified non-cited violation for failure to provide timely notification to the NRC following identification of the missed emergency classification.

March 29, 2010 DBNPS notified the NRC that the station has completed the immediate actions associated with the root cause investigation and is in now in full compliance. NRC has scheduled a follow-up inspection for the week of August 16th.

Independent Assessments/Completion of NRC Confirmatory Order

As part of the NRC confirmatory order related to the 2002 DBNPS reactor vessel head degradation event, DBNPS committed to performing independent assessments of four key programs for a period of five years (2004-2008). The key programs assessed were the corrective action program, engineering, operations and safety culture. The five year assessment period has ended and the NRC has returned DBNPS to their normal oversight process.

Emergency Action Level scheme upgrade to NEI 99-01 Revision 5

On September 30, 2009, DBNPS transitioned to the new NEI 99-01 Emergency Action Levels. Training has been provided to ERO, state and county personnel on the NEI 99-01 Revision 5 Emergency Action Levels (EALs). A training session for off site organizations was presented on September 22, 2009. The training session was well received and few comments resulted. EAL training for senior reactor operators and other ERO members has been on going since August, 2009. The Emergency Plan and associated implementing procedures have been revised including changes resulting from training feedback. The new EALs went effective with the new EAL scheme on September 30, 2009.

Ground Water Sampling Results

On December 29, 2009 the results of the October ground water sampling were received from the vendor. Ground water sample from Protected Area well MW-105A showed a tritium

concentration of 2,285 pCi/L. This result was not unexpected, since ground water wells in this vicinity have showed slightly elevated tritium concentrations following the discovery and repair to a leaking condensate backwash line in fall of 2008. Ground water flows from the area of the condensate pipe leak toward well MW-105A, and slightly elevated tritium concentration was noted in wells between the pipe break and MW-105A in the spring 2009 samples.

Following the receipt of each of the sample results courtesy notification were made to state and local officials. Normal spring sampling of all Ground Water Protection Initiative (GPI) wells was completed in May, 2010 with the sample results pending. Overall there have been no new sources of tritium and the existing tritium is being monitored through the sampling process.

Perry Nuclear Power Plant



The Perry Nuclear Power Plant (PNPP) located on the shores of Lake Erie in Lake County, approximately 35 miles northeast of Cleveland, began commercial operation in November 1987. The plant is owned by First Energy Nuclear Operating Company and operated by the First Energy Nuclear Operating Company (FENOC).

PNPP is a single unit General Electric boiling water reactor (BWR). A BWR is designed to use the steam that is produced inside the reactor to drive the turbine generators. Under ideal conditions, PNPP is capable of producing enough electricity to power 1,220,360 homes in an average month.

The plant operated safely and reliably during the year and there were no declared emergencies during the reporting period.

Outage

No refueling outages occurred during this reporting period.

March 28, 2010 - Feedwater Pump Lube Oil Fire

At approximately 6:00 p.m. PNPP's Control Room operators noted computer alarms associated with Reactor Feed Pump Turbine (RFPT) 'B'. An operator was dispatched to investigate and found a small smolder fire on the pump. This pump is one of two variable speed pumps in the Feedwater System, along with the motor driven feed pump, that maintain reactor water level during all modes of plant operation. Control Room Operators performed an immediate shutdown of RFPT'B'. All plant equipment responded as designed, and reactor power was reduced from 100% to approximately 75%.

The Control Room Operators determined that no Emergency Action Levels had been met and as a result did not require a Classification of Emergency to be made. In parallel, site fire brigade members were dispatched to the fire, and the Perry Fire District along with Painesville City, Painesville Township, Madison, Geneva, Concord Township, Mentor and Leroy Township Fire Departments responded to provide assistance. The fire was extinguished using CO₂, dry chemical and short burst of water and was reported to be out at 9:22 p.m. Two fire brigade members were transported offsite to Tri-Point Medical Center after showing symptoms of heat stress. Both were treated and released later that evening.

Investigations indicated the cause of the fire was likely from lubricating oil that leaked from a main journal bearing cover onto the RFPT insulation and ignited. Following evaluation, the RFPT 'B' was returned to service on April 1st and power level was raised to 100%. Closed circuit monitoring of the turbine was established with no further problems noted.

Reactor Scram on May 11, 2010

On May 11, 2010, at 2318 hours, a manual Reactor Protection System actuation was inserted in accordance with Technical Specification (TS) 3.1.5, "Control Rod Scram Accumulators". Control Rod Drive (CRD) system charging water header pressure was decreasing and multiple accumulator fault alarms were received on withdrawn control rods. A failed master trip unit caused an invalid Division 2 loss of coolant accident initiation signal and loss of electrical power to the operating CRD pump and standby CRD pump. The operating CRD pump was in an allowed alternate electrical line-up at the time and could not be transferred to its normal source for a timely restart.

The failed trip unit was replaced and tested satisfactorily. Future replacement trip units will be required to have 100 hours burn-in prior to installation to reduce the potential for early failures. Plant procedures will be revised to improve recognition and evaluation of long-term plant configurations and degraded conditions.

Recirculation pump trip on June 4, 2010

On June 4, 2010, at 0707 hours, the Reactor Recirculation Pump "A" tripped off due to the power supply breaker 5A opening. The 5A breaker opened as a result of a failed optical isolator circuit output card. The power plant entered single loop operations with final reactor power at approximately 58% rated thermal power (RTP). The optical isolator card was replaced. The operators then lowered reactor power to approximately 21% RTP on Saturday, June 5 in order to recover Reactor Recirculation pump A and commence power ascension. Following a rod pattern adjustment and continued power ascension, the plant returned to 100% power on June 9, 2010.

The root cause investigation team concluded the Reactor Recirculation 'A' Pump trip was caused by an inadequate circuit design to suppress the voltage surge (Inductive Kick) from relay 1B33A-K150A. Previous corrective actions to address similar failures were too narrowly focused and not implemented as intended. Additional corrective actions have been developed and implemented.

Alert and Notification System (ANS) Self-Assessment

Approximately every six years in conjunction with the State of Ohio a self-assessment is performed on the Alert and Notification System. In addition to three utility members, peer evaluators from Ohio Emergency Management Agency in Columbiana and Ottawa County participated in the assessment. The evaluation was performed in the fall of 2009. The team reviewed the following program elements:

- Emergency Planning Zone (EPZ) changes in ambient noise and demographics
- Siren system maintenance and performance
- Public information program
- Notification systems such as Emergency Alerting System (EAS), Special News Bulletins (SNB), and special situation notification such as boaters, parklands, institutionalized, etc.

The partnership between the utility and local emergency management agencies has resulted in an effective system for providing for the alert and notification of community residents within the PNPP EPZ. The counties have demonstrated a strong commitment to emergency preparedness. The Mentor Headlands Park uses the PNPP EPZ siren L51 as a public safety address system which shows the partnership between utility and local agencies.

A deficiency was identified concerning the multiple repairs on the pole top assemblies. The siren pole top heads have been in service since 1984 and are starting to show signs of deterioration. A project plan to upgrade the system will be presented to the Project Review Committee in the last half of 2010.

Cross-Cutting Issues

The NRC reported that: “The PNPP operated in a manner that preserved public health and safety and fully met all cornerstone objectives. Plant performance for the most recent quarter, as well as for the first three quarters of the assessment cycle, was within the Licensee Response column of the NRC's Action Matrix, based on all inspection findings being classified as having very low safety significance (Green) and all PIs indicating performance at a level requiring no additional NRC oversight (Green)”.

Improvements have been seen in this area by the PNPP staff and the NRC but both agree that additional work is needed. PNPP continues to pursue actions to improve the areas and remains in Column 1 of the NRC’s Action Matrix which requires only routine oversight.

Dry Cask Storage Update

Work continues on the dry cask storage project. The upgrades to the haul path have been completed. Upgrades of the Fuel Handling Building crane are in progress. The arrival of major equipment/components (casks, ancillaries) is in progress with most equipment received. Procedure updates are in progress. Training on the new task and procedures began in May 2010. Dry runs of the cask loading and transport process, with NRC observation, are scheduled to begin in August 2010. The loading of spent fuel into the first dry casks (first phase is 6 casks) is anticipated to begin in the fall of 2010.